

PROJECT REPORT

*For the Proposed Bridge Replacement
Over
South Fork American River*

On **Route 49 in El Dorado County**
From **Approximately 0.1 miles east of Marshall Road**
To **Approximately 0.3 miles east of Lotus Road**

I have reviewed the right of way information contained in this report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:




JOHN BALLANTYNE, DISTRICT DIVISION CHIEF, RIGHT OF WAY

APPROVAL RECOMMENDED:



JESS AVILA, PROJECT MANAGER

APPROVED:

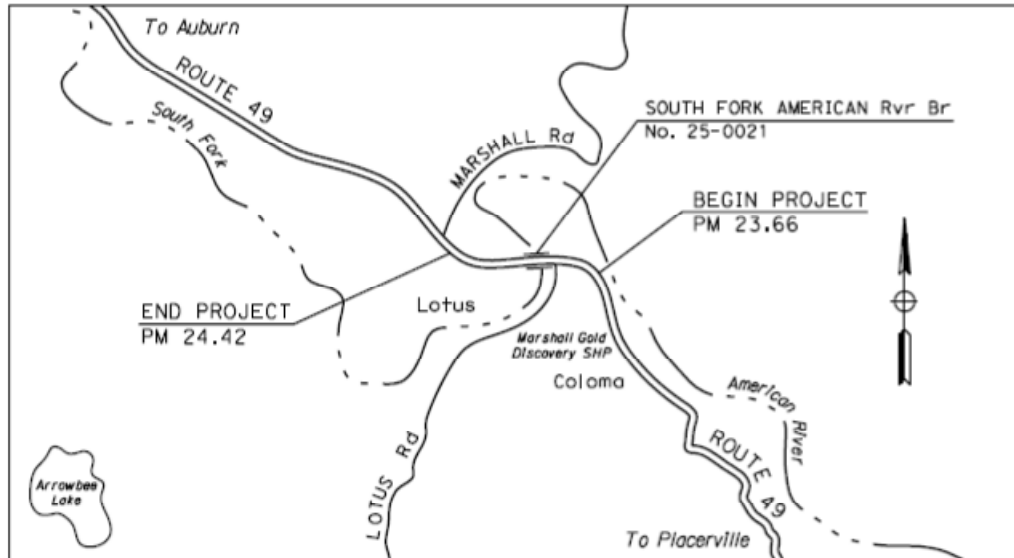


AMARJEET S. BENIPAL, DISTRICT DIRECTOR

3-10-15

DATE

Vicinity Map



This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Ron [Signature]
REGISTERED CIVIL ENGINEER

3-6-15
DATE

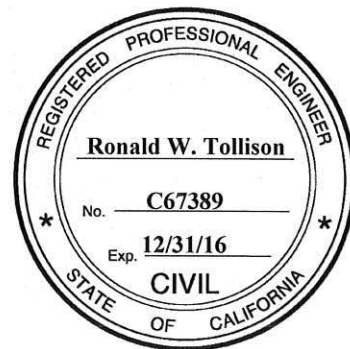


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1. INTRODUCTION

Project Description

It is proposed to replace the South Fork American River Bridge, No. 25-0021, on Route 49 in El Dorado County in order to meet current seismic design standards.

It is recommended that Alternative 3A - new bridge to the north - be approved as the preferred alternative.

The preferred alternative will construct a new concrete box-girder bridge along an alignment parallel to and north of the existing alignment. The proposed new bridge will be wider than the existing bridge to improve safety and relieve congestion for bicycle and pedestrian traffic over the bridge, and will provide two 12' lanes, 8' shoulders, 6'8" curbs and sidewalks, and concrete barriers on the bridge.

Route 49 will be widened beyond both ends of the proposed new bridge as a result of the bridge widening and realignment. Beyond the proposed new bridge, the roadway realignment will require the construction of new curbs, gutters, sidewalks, and retaining walls to meet current design standards. Intersections at Lotus Road and Little Road, along with driveways throughout the project will be reconstructed to meet current design standards. Raised median islands will be constructed on the west side of the bridge to provide traffic calming and a 12' wide two-way left turn lane will promote increased pedestrian accessibility and safety. The shoulders will be paved along Route 49 on the west side of the proposed new bridge to provide parking along the highway.

The estimated cost for the preferred alternative is \$14,277,499 which includes \$13,813,499 for construction and \$464,000 for right of way. Fee and temporary rights are required. The bridge will be constructed in stages to minimize traffic impacts. For the stage construction, a portion of the new bridge will first be constructed next to and separate from the existing bridge. That will be followed by demolition of the old bridge, which will be followed by the final portion of the new bridge being constructed.

Three viable alternatives were studied for this project and were analyzed in the Environmental Document. The three viable alternatives were: alternative 2 – seismic retrofit & widen existing bridge, alternative 3A – new bridge to the north, and alternative 3B – new bridge on existing alignment. Eight other options were evaluated but were found to be infeasible and were rejected. During the writing of this Final Project Report, geotechnical borings and site investigations for this project were performed at the project location and have indicated that the site is scour critical. As a result, alternative 2 (widen and retrofit existing bridge) is no longer viable.

Project funding is from the 2014 SHOPP in the 15/16 Bridge Seismic Restoration program. This project has been assigned to Project Development Category 4B because it does not require substantial new right of way or increase traffic capacity.

Table 1: Project Information

Project Limits	03 - ED - 49 PM 23.66 to 24.42
Number of Alternatives	3
Projected Capital Outlay Support Estimate	\$7,400,000
Projected Capital Outlay Construction Estimate	\$14,277,499
Projected Capital Outlay Right-of-Way Estimate	\$464,000
Funding Source	20.XX.201.113 (SHOPP) 20.30.600.620 (STIP-RIP)
Funding Year	FY 2015/2016
Type of Facility	Two lane conventional highway in a rural main street setting.
Number of Structures	1
SHOPP Project Output	20.XX.201.113: one bridge
Environmental Determination or Document	Initial Study with Mitigated Negative Declaration (CEQA) and Categorical Exclusion (NEPA)
Legal Description	About 8.5 miles north of Placerville at South Fork American River Bridge 25-21.
Project Development Category	4B

2. RECOMMENDATION

Caltrans recommends that this Project Report and the accompanying Environmental Document be approved. It is recommended that Alternative 3A, New Bridge to the North, be selected as the preferred alternate.

3. BACKGROUND

Project History

A project scope summary report (PSSR) was completed in February 2010 that proposed to seismically retrofit the existing bridge without widening it. A design exception for nonstandard lane, shoulder, and clear recovery zone widths was approved to retain the existing bridge width. In the report, a second alternative had been considered but was rejected that would have widened the existing structure to accommodate design-standard shoulder and sidewalk widths. Feedback from the local community indicated their objections to completing work on the existing structure without also performing widening that would accommodate pedestrians and

bicyclists. Ultimately, the project did not get programmed in the 2010 SHOPP as originally planned.

In November 2011, a supplemental PSSR (SPSSR) was approved that included a wider range of alternatives. In addition to the previously approved seismic retrofit without widening alternative, the report also included a seismic retrofit with widening alternative, a bridge replacement alternative, a seismic retrofit alternative with a separate pedestrian/bike structure, and a seismic retrofit alternative with attached pedestrian facilities. Part of the scoping process included outreach to the local community, county government, and other stakeholders. Their input was considered in selecting the preferred alternative, which was the seismic retrofit with widening alternative.

Given that the studies in the SPSSR went beyond the scope typically found in a bridge seismic retrofit PSSR, the decision was made to develop a project report (PR) to fully explore the project alternatives and their impacts. Development of a project report also allowed for further interaction with stakeholders via public forums and meetings to insure their concerns and needs were being addressed by the project.

Community Interaction

Earlier project development efforts received considerable interest and attention from local community members and associations, as well as from the El Dorado County Transportation Commission (EDCTC).

In January 2011, the Caltrans project manager at the time gave a presentation to the County Board of Supervisors on the alternatives studied in the original PSSR that was completed for the project, as well as three new conceptual alternatives that were being studied at the time. The Board expressed their concern that the project as approved by the original PSSR did not accommodate pedestrian and bicycle access on the bridge.

In March 2011, a public forum was sponsored by the County to present the alternatives that were being studied for inclusion in the supplemental PSSR. The meeting sign-in sheet has 26 attendee signatures. Comments from the public which were written on provided comment sheets discussed pedestrian and bicycle access, aesthetics, and ways to lower vehicle speeds in the area.

In May 2013, a public forum was held by Caltrans to highlight the project alternatives which were being considered for inclusion into the project report. Strong interest in the project from stakeholders prompted Caltrans to arrange for the meeting even though it was very early in the project report study phase and detailed information on the alternatives was not available at the time. New variations of the bridge replacement alternative were presented in addition to discussing the alternatives that were contained in the supplemental PSSR. A total of four new bridge replacement options were discussed during the meeting; two which would shift the new bridge alignment south and two which would shift the new bridge alignment north. As

indicated by the sign-in sheet, the meeting was attended by at least 32 people. The four written comments received from the public discussed river access (during and after construction), project costs, traffic impacts during construction, impacts to private property, compatibility with flood events, and potential loss of parking used for river access.

Caltrans' environmental and design personnel held a focus meeting in August 2013 regarding river access. Attendees included representatives from water recreation associations, a local business owner, and County personnel. The purpose of the meeting was to gather information about current river access for recreational users. Caltrans' project management and design personnel held another focus meeting on November 18, 2014 regarding alternative selection and river access. Attendees included a representative from a river recreation association, a local business owner, and two County representatives. The purpose of the meeting was to solicit focused information from key stakeholders pertaining to the remaining three viable alternatives being considered at that time: Alt. 2 - seismic retrofit and widen existing bridge, Alt. 3A - new bridge 21 feet to north of existing bridge, and Alt. 3B - new bridge on existing bridge alignment. The focus meeting was held prior to the larger public meeting that was scheduled for later that week. Attendees at the focus meeting voiced their preferences for river access, including the possibility for future cooperative agreements to allow for public use of a Caltrans owned maintenance access road and gate located at the southwest side of the bridge, which would allow for continuous public access to the river. The County personnel present at the focus meeting discussed the possibility of improving recreational use in and access to the area by making parking at the nearby Henningsen-Lotus Park available to the public at reduced or zero fees. Attendees at the focus meeting also provided information regarding the volumes of vehicle, bicycle, pedestrian, and recreational river traffic (rafts, tubes, boats) through the project area on a seasonal basis. They said that nearly 750,000 people use the site every year in the summer due to its unique characteristics, making it one of the most heavily recreated sections of any river in the state. The attendees made a point of how this very heavy traffic through the small rural community during the summers contributed significantly to the local economy. As a result the community is largely dependent on this summer recreational use and traffic. Attendees also discussed how the existing highway facilities, especially the existing bridge, with 1' shoulders and 1'9" sidewalks, do not provide for safe or efficient movement of the very large crowds of bicycle and pedestrian traffic. They also mentioned that during the summer months a large number of visitors tend to park on one side of the bridge, and walk across the bridge carrying their gear—including rafts, kayaks, and tubes—over the narrow bridge. The attendees expressed their strong preference for alternative 3A, as it has the potential to provide for safer, more efficient movement of vehicles and recreational users across the bridge. In addition, because of the realignment, it also provides for street improvements, which will benefit local residents, businesses, recreational visitors, and the community as a whole.

On November 20, 2014, a public meeting was held in the nearby community of Coloma to present the three viable alternatives under consideration at that time to the public for their consideration and input. The meeting was well attended, with 40 signatures shown on the sign-in sheet. Caltrans staff provided details of each alternative, which were supported by visual aids prepared for the meeting. The attendees asked many questions about each of the alternatives. Caltrans staff thanked the attendees for their thoughtful questions, and told them that all comments and questions should be submitted in written form or by email so they could be responded to appropriately and become part of the project records. Subsequent analysis of the public comments indicated a very strong, although not unanimous, preference for alternative 3A - new bridge to the north. The public comments indicated a strong dislike of alternative 2 - seismic retrofit and widen existing bridge, since it would require the use of one-way reversing traffic control for the entire duration of the bridge construction activities which would cause profound adverse impacts on the local economy and movement through the area in general. In addition, Caltrans agreed to meet with the public again during the design phase to allow for further participation and input.

In summary, the community appears to be supportive of the project insofar as it addresses their primary concerns of accommodating pedestrians and bicyclists on the bridge and maintaining/upgrading access to the river. Given that the area experiences a high level of seasonal tourism, it is important to the community to keep the bridge open to vehicle traffic, bicycles, and pedestrians during construction and to minimize the number of traffic restrictions during the peak tourism season. Caltrans will continue to address these issues through studies and interaction with stakeholders.

Existing Facility

Route 49 is considered a north/south highway in the State highway system. However, the focus of this project is on the bridge over the South Fork of the American River, and the bridge has an east/west orientation. Therefore, to simplify directions and referencing contained in this report, all referencing will be to cardinal directions unless otherwise specified (ie, true north, true east, etc).

Route 49 passes through the nearby communities of Lotus and Coloma, and the properties adjacent to and near the highway within the project are a mix of residential and commercial properties with driveway connections to the State highway. A safety project completed in 2006 installed two-way left turn lanes, wider shoulders, and pedestrian pathways to improve the safety and operations on Route 49 from Marshall Road to the bridge.

The posted speed limit along Route 49 is 45 mph west of Little Road and 35 mph east of Little Road. The intersections of Route 49 with Marshall Road and Lotus Road are stop-controlled intersections. Existing State right of way is generally 200' wide (100' to each side of centerline) and 400' wide at the existing bridge. The existing horizontal and vertical alignments were designed and built according to the geometric design standards used at that time. However, based on current geometric design standards, the vertical alignment at one crest vertical curve causes nonstandard sight

distance. In addition, the existing superelevation does not meet current standards at some locations in the project limits. Due to the mountainous terrain and curvilinear nature of the existing road, many of the public and private road connections have nonstandard corner sight distance. The existing structural section appears to be in good condition.

The existing roadway within and near the project is a two lane hot mix asphalt (HMA) conventional highway with two 12' lanes and shoulders that vary in width from 1' to 8'. The existing bridge has two 12' lanes, 1' shoulders, 1'9" concrete sidewalks, and a concrete barrier on top of the sidewalk. The highway is classified as a rural highway in mountainous terrain (See Location Map, Attachment A).

The existing bridge was built in 1951. Maintenance records do not indicate that any significant maintenance work has been completed since the original construction. Routine maintenance work has occurred such as repainting, repairing guardrail approaches, etc. The latest Bridge Report, dated 9/18/2012, lists the bridge as having "vulnerable hinges and tall steel girders that may require cross bracing."

4. PURPOSE AND NEED

Purpose:

The purpose of this project is to replace the South Fork American River Bridge, No. 25-0021.

Need:

The bridge needs to be rehabilitated or replaced to meet seismic standards.

4A. Problem, Deficiencies, Justification

The South Fork American River Bridge was identified in Bridge Inspection Reports as needing a seismic retrofit and other repair work. The needs include correcting vulnerable hinges, providing cross bracing for tall steel girders, and updating the bridge rails to meet current standards. In order to properly scope the work needed, project studies were completed that resulted in the completion of a PSSR in February 2010, and then later a supplemental PSSR (SPSSR) in November 2011. The SPSSR noted that the existing bridge is also functionally obsolete due to its narrow width and is fracture critical due to it having only two girders. The PSSR and SPSSR provided alternatives and initial cost estimates to correct the seismic and structural deficiencies. Community and governmental involvement in those studies led to additional needs being identified, which could not be addressed or resolved through the PSSR study process.

As discussed in the introduction, geotechnical investigations performed at the project site in January and February 2015 have indicated that the site is scour critical. As a result, alternative 2 - widen and retrofit existing bridge is no longer viable.

This project report will recommend and approve an alternative for design and construction that will satisfy the need to replace the existing bridge to meet current scour, seismic, and roadway standards, and that will also address local community and governmental concerns through the project development process.

4B. Regional and System Planning

Identify Systems

The following regional and system planning information was taken from the current Transportation Concept Report (TCR) for Route 49 dated September 2000.

Table 2: Systems Information

Type of System	Status
Interstate	No
National Highway	No
Freeway and Expressway	No
Scenic Highway	Eligible
Interregional Road System	Yes *
State Highway Extra Legal Load Route	No

* not a Focus or High Emphasis Route

This portion of Route 49 is a California Legal Advisory Route with a kingpin to rear axle designation of 30'.

State Planning

The TCR for Route 49 outlines a two lane conventional highway as the Concept Facility and an access controlled facility between the community of El Dorado and the City of Auburn on a new alignment as the Ultimate Facility. Per the TCR, interim improvements should include widening to a 40' standard where possible and completing safety and operational improvements along with normal maintenance and rehabilitation as needed. The recommended project alternative will satisfy the interim improvement goals given in the TCR.

The TCR also notes the community would like to add a left turn lane from westbound Route 49 to southbound Lotus Road. However, an analysis of the intersection using multiple data sources shows that, with the inclusion of a right turn lane from eastbound Route 49 to southbound Lotus Road, the intersection should operate acceptably without a westbound left turn lane for the next 20 years. Additional discussion of the right turn lane is provided in the Current and Forecasted Traffic section below.

The District 3 State Highway Bicycle Facility Plan recommends a shared bicycle facility on Route 49 between Cold Springs Road and Saint Florian Court (PM 22.84

to 34.86). A shared bicycle facility has no bicycle route classification, but is open to bicyclists unless otherwise posted. The District 3 recommendation doesn't preclude local jurisdictions from upgrading bicycle facilities using a local funding source.

Regional Planning

This project is listed in the Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan and is described as a "seismic retrofit and enhancement project to provide safe and efficient pedestrian and bicycle facilities." Since this project is not capacity increasing and is proposing alternative transportation mode enhancements for pedestrians and bicyclists, this project should be exempt from any requirement to perform air quality analysis and should be consistent with the State Implementation Plan for air quality.

Local Planning

In 2010, the EDCTC completed a realignment study to explore the feasibility of realigning Route 49 between Lotus Road in Coloma and Pleasant Valley Road in El Dorado. Several viable alternatives were identified. For the realignment project to move into the next planning phase, a funding source would need to be identified.

The El Dorado County Bicycle Transportation Plan dated November 2010 shows Route 49 through the project as a proposed Class II bicycle route. This goal has been partially implemented through a project constructed in 2006 that provided 5' shoulders striped for a Class II bicycle lane from Marshall Road to the west end of the South Fork American River bridge. This project will improve bicycle and pedestrian mobility in the area.

The El Dorado County Transportation Commission unanimously voted to allocate up to \$500,000 in the Regional Transportation Improvement Program for the Transportation Enhancement proposal to provide safe and efficient pedestrian and bicycle facilities on the South Fork American River Bridge.

Transit Operator Planning

No public bus service currently exists in this area. There are some local private shuttles that operate during the busy summer months.

4C. Traffic

Current and Forecasted Traffic

The following traffic information was provided by the Office of Travel Forecasting and Modeling and is based on a 20 year design period.

Table 3: Traffic Information

County		El Dorado		
Highway		49		
Post Mile		23.5/24.7		
Average Annual Daily Traffic			Directional %	64
Base Year	2011	5,400	Design Hourly Truck %	5.0
	2017	5,940	10-year Traffic Index	8.5
	2027	7,560	20-year Traffic Index	9.5
	2037	8,910	10-year (ESAL)	619,000
Peak Hour			20-year (ESAL)	1,575,000
Base Year	2011	500		
	2017	550		
	2027	700		
	2037	830		

ESAL = equivalent single axle load

Traffic operations studies have identified a need for a right turn lane from eastbound Route 49 to southbound Lotus Road to minimize queuing and improve operations during peak morning commute hours and heavy recreational traffic in the summer months.

Collision Analysis

There have been two collisions within the project postmile limits between April 1, 2009 and March 31, 2012. One was a minor rear-end collision at the intersection of Lotus Road, and the second involved a legally impaired driver (DUI) who made an unsafe turn onto River Park Drive. The proposed project would not have affected either collision.

With only two collisions at separate locations, there is no identifiable collision pattern. However, the proposed project scope will reduce the potential and severity of future collisions by widening shoulders and upgrading the bridge rails, and through other improvements such as a raised median island.

5. ALTERNATIVES

5A. Viable Alternatives

This Project Report will discuss two viable alternatives as follow:

- Alternative 3A: New Bridge to the North (Preferred Alternative)
- Alternative 3B: New Bridge on the Existing Alignment

A full discussion of each alternative is presented below. See the attachments for more information about the alternatives (Typical Cross Sections, Layouts, and Structures Planning Studies). Each of the two viable alternatives is expected to take two to three construction seasons to complete, and that estimate accounts for completing some work during off season periods.

Proposed Engineering Features

- Alternative 3A: New Bridge to the North, (Preferred Alternative)

This alternative includes replacing the existing bridge with a new concrete box-girder bridge. To maintain the existing traffic patterns while the new bridge is under construction, the centerline alignment would shift to the north by 20'7". The new design-standard bridge will have two 12' lanes, 8' shoulders, 6'8" curbs and sidewalks, and 42" tall concrete safety barriers. The overall traffic impact of the alignment shift during construction would be minimized by building the proposed bridge in three stages to build the new bridge one-half at a time.

During stage 1 of new bridge construction, traffic would be kept in two lanes on the existing bridge while the first half of the new bridge is constructed to the north. During stage 2, the two lanes of traffic would be shifted onto the first half of the new bridge constructed previously in stage 1. Also during stage 2, the second half of the new bridge including the sidewalk and barrier rail would be constructed after the existing bridge has been removed. During stage 3, the two lanes of traffic would be shifted from the north half of the new bridge which was constructed in stage 1 to the south half to allow for construction of the sidewalk and barrier rail on the north half away from traffic. At the end of stage 3 the new bridge would be complete and traffic would flow in two directions with the new wider shoulders and sidewalks. Refer to the structure planning study for alternative 3A in Attachment D.

Due to the alignment shift, roadway widening will be required on the approaches to the bridge. Roadway widening will extend from the proposed new bridge until the new alignment conforms to the existing alignment on curves to the west and east of the bridge. To the west, the alignment conform occurs just east of the Marshall Road intersection. To the east, the alignment conform occurs near an entrance to the Marshall Gold Discovery State Historic Park. The roadway will be widened to have design-standard 12' lanes, 8' shoulders, and 6'8" curbs and sidewalks. Paving conforms from SR 49 onto county roads will be constructed under county encroachment permits.

To the west of the bridge, the current variable width two-way left turn lane and median islands are proposed to be replicated on the new alignment. The new design will also include additional raised median islands with improved contrast features to provide traffic calming and a 12' wide two-way left turn

lane. Designated left turn lanes will be placed where needed. New sidewalks will extend westerly from the bridge up to where the new and old alignments conform and will extend easterly from the proposed new bridge to the Little Road and Lotus Road intersections. A new pedestrian crossing will be located near station 33+25 on the west side of the bridge. The crossing will be compliant with the Americans with Disabilities Act (ADA) and marked with signs, but will not have a striped crosswalk.

Retaining walls will be required since cut slopes steeper than 2(H):1(V) cannot be used within the project due to erosion concerns. A retaining wall is also needed to eliminate a horizontal curve stopping sight distance restrictions between approximate stations 52+50 to 59+50 east of Lotus Road. The Lotus Road intersection, as well as larger private driveway intersections such as Little Road, will be reconstructed to meet current design standards. Roadway profile and superelevation correction work will be incorporated into the project design as needed to meet current standards. Notably, nonstandard sight distance due to crest vertical curve geometry between stations 48+00 to 59+00 will be corrected under this alternative. Locations of retaining walls are identified on the attached layouts (See Typical Cross Sections and Layouts, Attachment B).

An advisory design exception was approved on March 6, 2015 for the use of side slopes greater than 4:1 between stations 54+00 and 61+00 due to proximity to the active river channel and right of way. Except for the advisory design exception for side slopes this project will not create any nonstandard features, and existing nonstandard features will be redesigned to meet current design standards.

- Alternative 3B: New Bridge on the Existing Alignment

Alternative 3B would replace the existing bridge with a new concrete box-girder bridge that would be constructed in three portions using stage construction methods. The new bridge alignment would be offset 2' to the south of the existing bridge alignment. The new design-standard bridge would contain two 12' lanes, 8' shoulders, 6'8" curbs and sidewalks, a 13'2" median, and 42" tall concrete safety barriers. The 13'2" median would be a byproduct of the stage construction process needed to accommodate new bridge construction on the existing alignment and would not be used for traffic. The overall impact to traffic during construction would be minimized by building the proposed bridge in three stages to build the new bridge one-third at a time.

During stage 1 of new bridge construction, traffic would be kept in two lanes on the existing bridge while the outer portions of the new bridge are constructed, both to the north and to the south. During stage 2, two lanes of traffic would be split and would be placed onto the outer portions of the new

bridge that were constructed during stage 1. The existing bridge would be removed during stage 2, followed by construction of the middle portion of the new bridge. During stage 3, the split lanes of traffic would be placed onto the middle portion of the new bridge that was constructed during stage 2 while the sidewalks and barrier rails were being constructed on the outer portions of the new bridge. At the end of stage 3 the new bridge would be complete and traffic would flow in two directions with the new wider shoulders and sidewalks. Refer to the structure planning study for alternative 3B in Attachment E.

Work on the bridge approaches would generally be limited to widening and conform work needed to connect the widened bridge and sidewalk to the existing roadway and foot paths.

Minor realignment and a retaining wall or cut would be needed at the Little Road intersection, and some roadway improvements would possibly be completed at the Lotus Road intersection. A retaining wall or slopes steeper than 2:1 would possibly be needed on the southwest corner of the bridge to retain maintenance and pedestrian access to the riverbed. Locations of potential retaining walls are shown on the attachments.

A pavement structural section recommendation was received for the project and is contained in the Attachment F. After necessary roadway widening is completed, the full width of the roadway will receive a 0.15' hot mix asphalt overlay. Metal beam guardrail will be placed as needed, and appropriate signing and striping will be provided, including a dedicated right turn lane from eastbound Route 49 to southbound Lotus Road. An overhead flashing beacon with an advance yellow flashing beacon will be installed at the Route 49 and Lotus Road intersection. A Type 80 concrete barrier with pedestrian hand rail will be used on the bridge.

Route 49 within the project limits is eligible for Scenic Highway Status. In addition, the local community has commented that they wish to provide input for design features and aesthetics to be incorporated into the project. Additional consideration will therefore be given to the aesthetics of constructed features such as retaining walls, abutments, wing-walls, concrete barriers, and other features as appropriate. These features should receive designs and treatments that will help blend them into the landscape and maintain the rural character of the community, including from the perspective of river users.

Park and Ride Facilities

The inclusion of park and ride facilities is not within the scope of this project. However, during the course of studies for river access (see section 7F), it was noted that a park and ride facility could provide parking for people accessing the river on the weekends and afternoons during the summer. Conflicting usage is not likely since commuters would be parking early in the morning, typically before river users would

begin arriving. A cursory review noted an area might be available for a lot on the west side of Lotus Road, just south of the intersection with Route 49. Lotus Road does carry some commuter traffic to urban areas, though further studies would be needed to document actual need and proper location of a facility. Since a park and ride facility is not part of the project, conceptual information was passed to the EDCTC for their further consideration.

Utility and Other Owner Involvement

Four utility owners have been identified in or near the project. They are Pacific Gas and Electric (PG&E), American Telephone & Telegraph Company (AT&T), Vast Networks (CVIN), and the El Dorado Irrigation District (EID). Since there is a water line and fiber optic line on the existing bridge, relocations of those facilities will be required. Depending on the alternative chosen, phone and electric relocations may be required for overhead facilities.

Protection and relocation of existing facilities is not expected to cause any difficulties for design or construction of this project. Potholing funds have been included. Consideration will be given to providing additional conduits to the bridge for future utility use such as electric or communications lines.

Railroad Involvement

There is no railroad involvement in this project.

Erosion Control

A Landscape Architecture Assessment Sheet (LAAS) has been completed (See LAAS, Attachment G). Erosion control will be needed for this project due to erosive soils and slopes that will vary from being flatter than 4:1 to 1.7(H):1(V). Usage of multiple stabilization features is expected including bonded fiber matrix, compost, fiber rolls, netting, and incorporation of materials into soil for stabilization.

Nonmotorized and Pedestrian Features

This project will provide substantial improvements for pedestrian and bicycle users. Improvements include incorporation of design-standard shoulders (8') and sidewalks (6'8") on the new structure and some widened portions of the adjacent roadway. Additional improvements will be constructed under the preferred alternative including a pedestrian crossing at station 33+25 along with new Americans with Disabilities Act (ADA) compliant sidewalks and curb ramps. These proposed improvements are in keeping with input received from the community and local government, and are in accordance with Deputy Directive-64-Revision 2: Complete Streets-Integrating the Transportation System (DD-64-R2) and will help to promote a more robust Active Transportation Program within the community.

Needed Roadway Rehabilitation and Upgrading

The pavement within the project limits does not need rehabilitation as there is only minor alligator A cracking and ride issues, per the 2011 Pavement Condition Summary Report as shown in Attachment I. Any digouts or other roadway needs will be addressed during the design phase, and the ride issues should be resolved by the overlay and superelevation correction work that will occur. In addition, a capital preventative maintenance (CAPM) project is planned for construction in 2015 (expenditure authorization 03-3F6704) and will extend from the community of Cool to the bridge paving notch on the west end of the South Fork American River Bridge.

Needed Structure Rehabilitation and Upgrading

The existing bridge needs seismic retrofit work in order to meet current seismic standards. Also, as described in the supplemental PSSR, the existing bridge is functionally obsolete due to its narrow width and is fracture critical due to it having only two girders. Widening of the structure under Alternative 2 would resolve the narrow width issue and would help to add redundancy to the structure which would reduce, although not completely remove, the fracture critical issue. However, as noted previously in this report, geotechnical investigations for this project have indicated that the site is scour critical. As a result, alternative 2 (widen and retrofit existing bridge) is no longer viable.

Cost Estimates

Cost Estimates have been prepared (See Cost Estimates, Attachment J) which show the capital outlay, right of way, and structures costs for the two viable alternatives. The estimates include the higher cost features such as retaining walls. See the Proposed Engineering Features section above for more information.

Right of Way Data

Right of Way Data Sheets (RWDS) have been prepared for each of the viable alternatives (See RWDS, Attachment K). A brief summary for each alternative is presented here. The RWDS estimates for this project report were prepared based on standard designs (ie, use of cut and fill slopes instead of retaining walls). Moreover, the use of retaining walls will also require right of way acquisition for temporary construction easements (TCEs) and permanent easements for footings and tie-backs that will extend beyond the existing right of way. See the Proposed Engineering Features section above for more information.

- All Viable Alternatives – Driveway conforms will be needed.
- Alternative 3A (Preferred Alternative) – Since this alternative shifts the bridge centerline alignment north approximately 21' and widens the adjacent roadways, adjacent parcels will be impacted. An estimated five partial fee acquisitions will be needed. All of them are relatively long and narrow. In addition, an estimated five temporary construction easements will be needed, as well as an estimated 10 permits to enter. Pavement conforms that will extend beyond the State right of way will be required on the county roads at Lotus Road and Beach Court; this work will be performed under county encroachment permits.
- Alternative 3B – This alternative would require two partial fee acquisitions that are relatively long and narrow. Also needed would be one temporary construction easement related to widening the bridge abutment fill. Permits to enter would be required. The potential exists for additional reconstruction work at the Lotus Road and Little Road intersections to meet design standards, which could require additional right of way or construction easements.

5B. Rejected Alternatives

The following alternatives were considered and **rejected**:

Alternative 1: Seismic Retrofit

This alternative would provide a seismic retrofit of the existing structure and construct a new concrete barrier without widening the bridge. Although a design exception was approved for nonstandard lane, shoulder, and clear recovery zone widths, this alternative was rejected due to opposition from the community and County government because it does not accommodate pedestrians and bicycles. This alternative was first identified in the PSSR.

Alternative 2: Seismic Retrofit with Widening

Geotechnical investigations were conducted at the project site in January & February 2015 to provide Structures Design with timely design related information. The results of those investigations indicated that the geology at the site consists of weathered and decomposed granite materials to depth that range from between 60' to 80' below the ground surface and channel bottom. As a result, the materials at the site and in the channel are erodible and are subject to scour. Consultations with Geotechnical and Hydraulics staff have indicated that due to the elevated risk for scour at the site, the site will be classified as scour critical. Due to the high costs associated with scour

mitigation and combined with required seismic retrofit and widening efforts, alternative 2 is not feasible and is rejected.

Alternative 3c: New Bridge, Construct with full Roadway Closure

This alternative would construct a new bridge that meets current design standards on the existing alignment. To construct a new bridge on the existing alignment without stage construction, Route 49 would have to be closed and a detour established. This alternative was rejected because a suitable detour does not exist and a full closure will face strong opposition from the community and County government. This alternative was first identified in the supplemental PSSR.

Alternative 3d: New Bridge, Variations NW1 and SW1

These two variations would construct a new bridge that meets current design standards on a new alignment (NW1 to the north and SW1 to the south). The 9' centerline shift in these alternatives requires extensive one-way traffic control to allow for bridge construction. These variations were rejected because there are other viable alternatives that minimize traffic impacts, which is an important issue to the local community. This alternative was not studied previously.

Alternative 3e: New Bridge, Variation CS1

This variation would construct a new bridge that meets current design standards on a new alignment to the south. The 21' centerline shift in this alternative creates encroachments on existing business driveways near the southwest corner of the bridge. Relocation and/or reconstruction of the driveways results in nonstandard designs, undesirable driveway locations, and increased parking lot congestion. This variation was rejected because of the impacts to the businesses on the southwest corner of the bridge and there is another similar alternative that remains viable. This alternative was not studied previously.

Alternative 3f: New Bridge, Variation TSN1

This variation would construct a new bridge that meets current design standards and has a bridge center that is shifted approximately 2' to the north of the existing centerline alignment. This alternative was rejected since there is a similar alternative that remains viable. This alternative was not studied previously.

Alternative 4: Seismic Retrofit with Attached Pathways

This alternative would provide a seismic retrofit of the existing structure and construct new concrete barriers without widening the bridge. Pedestrians and

bicyclists would be accommodated on new pathways created by attaching steel beams to the existing piers to provide support for a separate pathway. Although a design exception was approved for nonstandard lane, shoulder, and clear recovery zone widths on the existing bridge, this alternative was rejected due to lack of clearance under the attached pathways for the anticipated design flood. This alternative was first identified in the supplemental PSSR.

Alternative 5: Seismic Retrofit with Adjacent Pedestrian/Bicycle Bridge

This alternative would provide a seismic retrofit of the existing structure and construct a new concrete barrier without widening the bridge. Additionally, a dedicated pedestrian/bicycle bridge would be constructed adjacent to the existing bridge. Although a design exception was approved for nonstandard lane, shoulder, and clear recovery zone widths on the existing bridge, this alternative was rejected due to apparent lack of interest by the local community and concerns about pedestrians and bicyclists having to cross Route 49 to use the new bridge. This alternative was first identified in the supplemental PSSR.

Alternative 6: No Build

This alternative would not construct any improvements on or replace the existing bridge. Since a bridge seismic retrofit or replacement is required to satisfy the identified need and purpose, this alternative was rejected.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

According to an Initial Site Assessment (ISA) completed by the Office of Environmental Engineering, no significant hazardous waste is expected to be encountered within the project limits (See ISA, Attachment L). However, hazardous materials are present or expected and are listed below:

- Aerially Deposited Lead – Lead was detected in soil samples taken in the project limits.
- Lead/Chromium Based Paint – Traffic stripes and markings are assumed to contain lead or chromium. The existing bridge has zinc chromate lead based paint.
- Naturally Occurring Asbestos – Soil samples taken in the project limits indicate a very limited presence of naturally occurring asbestos (NOA). Though not anticipated, if future sampling reveals the presence of NOA above a certain threshold, special handling will be required since it would then be a regulated substance by the State of California.

- Treated Wood Waste – Treated wood waste will be created by this project, and it must be handled and disposed of properly.

The hazardous materials expected in the project can be dealt with through the inclusion of appropriate standard special provisions, a lead compliance plan, and an asbestos compliance plan.

6B. Value Analysis

A Value Analysis for this project is not required or warranted.

6C. Resource Conservation

This project will seek to conserve energy and nonrenewable resources where practical, including retention of the existing roadway structural section instead of reconstructing it where possible.

6D. Right-of-Way Issues

Right of way information for each alternative is discussed in section 5A: Viable Alternatives. Further right of way information details are provided in Attachment K.

6E. Environmental Issues

This project will be environmentally approved by an Initial Study with a proposed Mitigated Negative Declaration (MND) for CEQA (California Environmental Quality Act) and a Categorical Exclusion for NEPA (National Environmental Policy Act) (See Environmental Document, Attachment M). No adverse impacts are anticipated for this project.

The MND has been prepared in accordance with Caltrans' environmental procedures and State environmental regulations. The MND is the appropriate document approval for the proposed project.

Per the environmental document, the proposed project would have no effect on agriculture and forest resources, air quality, geology and soils, hazards or hazardous materials, mineral resources, population and housing, or utilities and service systems.

Additionally, it states that the proposed project would have less than significant effects to aesthetics, cultural resources, noise, public services, land use and planning, recreation, and transportation/traffic.

Finally, by incorporating certain mitigation measures (described in the environmental document), the proposed project would have less than significant effects to biological resources, including riparian vegetation habitat.

Wetlands and Floodplains

This project will not impact wetlands. Some riparian vegetation habitat may be removed to facilitate construction, but it will be replaced to minimize impacts.

Work in the floodplain is not avoidable since this is a bridge replacement project. Impacts to the floodplain will be minimized by designing the new structure to accommodate the design flood.

Impacts to Navigable Rivers

Construction in the floodplain, and within the existing waterway, will be required to modify, remove, or construct new piers and foundations, and for the bridge deck falsework. To accommodate river rafting activities, a 30' wide clear channel will be maintained at nearly all times. Occasionally for safety reasons, boat passage under the bridge will have to be halted for short periods of time expected to be 15 minutes or less. These temporary closures would occur when equipment or materials are being craned into place above the boat passage channel, for example. To facilitate these closures, it is expected that a "spotter" would be on the river upstream from the bridge and would guide boaters to the shore at the appropriate times and let them continue on when it is safe to do so.

Post construction, the clear width of the floodplain would be increased since the existing piers would be removed and fewer piers are needed for the new bridge. The new piers may be slightly wider than the existing piers (measured perpendicular to the river flow), but they would be round versus the oblong shape of the existing piers. Though river channels are always subject to change over time, the proposed new piers will be outside the current summer flow waterway.

Dewatering

Bridge foundation construction may require dewatering. Removed water would be treated to ensure acceptable condition of the water prior to release. Appropriate stormwater treatment best management practices would be used, and the discharge would occur away from the active channel to provide an opportunity for the water to infiltrate into the ground.

Other Environmental Issues

Aesthetic features will be incorporated into the project to offset potential visual impacts. The community wants to preserve the historic and rural aesthetics throughout the project area. Full information on environmental issues associated with this project can be found in the environmental document in Attachment M.

6F. Air Quality Conformity

For this project, it was determined that each viable alternative is fully compatible with the design concept and scope described in the current Sacramento Area Council of Governments' Metropolitan Transportation Improvement Program.

6G. Title VI Considerations

By including standard sidewalks and curb ramps, this project will be improving access for low mobility persons. In addition, Title VI was adhered to for the various public meetings held.

6H. Noise Abatement Decision Report

This project does not contain any noise abatement issues or work.

7. OTHER CONSIDERATIONS AS APPROPRIATE

7A. Public Hearing Process

Typically, a public meeting is not held for a Project Development Category 4B project unless one is requested. However, public meetings were held for this project in May 2013 and also in November 2014 due to the high level of interest by the local community, outdoor recreational groups, and County government officials. The viable alternatives were presented, as well as a discussion of river access studies (see section 7F), and feedback was obtained from attendees for consideration in preparing this final project report.

7B. Route Matters

This project does not require any freeway agreements, new connections, route adoptions, or relinquishments.

7C. Permits

The following special permits are anticipated for the project:

- County Encroachment Permits
- United States Army Corps of Engineers 404 Permit
- California Department of Fish and Wildlife Streambed Alteration Agreement 1602 Permit
- Regional Water Quality Control Board 401 Certification

Other general permits applicable to this project include:

- Water Quality Control Board General Construction Permit
- Water Quality Control Board Municipal Separate Storm Water Sewer System Permit (MS4 Permit)
- Water Quality Control Board Dewatering Permit

7D. Cooperative Agreements

No cooperative agreements have been identified for this project.

7E. Other Agreements

No other agreements unique to this project have been identified.

7F. Report on Feasibility of Providing Access to Navigable Rivers

Introduction

Since both of the viable alternatives involve a new structure over navigable waters, studies relating to river access were completed as required by section 84.5 of the California Streets and Highways Code. Issues considered included extent of public use for recreational purposes, other access options, environmental impacts, right of way issues, construction and maintenance costs, and pedestrian accessibility. A discussion of these topics and a summary of proposals are contained in this section. Included as attachments are the following:

- Access Improvement Study Map – Aerial mapping providing a graphical reference to locations discussed in the Access Improvements Study Summary (See Attachment N).
- Access Improvement Study Summary – A listing and discussion of all access related proposals considered for inclusion in the project (See Attachment O).
- Access Improvements to Be Included in Project – A listing of access improvements to be included in the project (See Attachment P).

- Existing River Access in the Project Vicinity – A listing and corresponding map of identified public and private river access opportunities within 2 ½ miles of the bridge (See Attachment Q).

Public Input

A strong interest in developing river access had been noted in earlier phases of project development, so the project development team opted to make contact with interested parties regarding a possible meeting on the topic. That meeting was held on August 29, 2013 and was attended by Caltrans personnel, County personnel, a Chamber of Commerce representative, and two members of the American Whitewater recreational group. The purpose of the meeting was to gather information about current river access for recreational users. Comments regarding river access were also received following a public meeting held for the project in May 2013.

Identified Issues of Public Concern

From meetings held and comments received about the project and river access, the following topics of concern were identified:

- The existing narrow bridge restricts river access.
- There is an interest in retaining and improving existing access on all corners of the bridge.
- There is an interest in getting improvements/connections to the adjacent County trail system.
- There is a lack of public parking in the vicinity.
- There is a shortage of restrooms and trash cans in the area.

All identified topics of concern were considered in the study, and the study conclusions can be viewed in the attachments.

Background

a) Extent of Public Use for Recreational Purposes

The Lotus-Coloma area is very heavily utilized for recreational purposes including camping, river based activities, concerts and festivals, visits to the Marshall Gold Discovery State Historic Park, tourism/sightseeing, and other outdoor activities. According to one source, the South Fork American River in the vicinity of the project is the most heavily rafted segment of river in the State. As such, the local community and recreational organizations have been very interested in river access issues and this project in general. Information gathered suggests that the peak visitation months run from mid-June to mid-August.

b) Other Access Options

A total of 18 river access options were identified in the vicinity of the project (within 2 ½ miles). These include both government and privately owned facilities, some being fee based and others at no cost. A summary of access options is provided here with further details and a map provided in the attachments.

- 7 private river rafting outfitters
- 4 private camping facilities
- 2 government facilities (fee based)
- 3 government facilities (no cost)
- 2 parking areas

Future potential improvements to river access were also identified during studies. These include development of the Bureau of Land Management parcel just south of the U.S. Post Office near the bridge and the potential construction of a park and ride facility near the corner of Lotus Road and Route 49.

c) Right of Way Issues

Route 49 in the vicinity of the project is a conventional highway and there is no access control that would prohibit pedestrian entry to the State right of way. The right of way width at the bridge is 200' on each side of the existing centerline (400' width total) and will not be reduced due to this project.

Conclusions

The project team determined that legal river access is currently afforded to the public through the State right of way that bounds the existing bridge and extensive river access opportunities, both government and privately owned, exist in the vicinity. However, given that the river in the project vicinity is a heavily used recreational destination, it is prudent to keep the existing river access use the same. The project team gathered and analyzed the available information, met with interested parties, conducted several internal focus meetings, and consulted with Caltrans District 3 executive staff to arrive at feasible access improvements for inclusion into the project.

The access improvements that will be incorporated into the project are identified below. These improvements can be made with minimal cost and environmental impacts and require no additional right of way.

- *Wider sidewalks and shoulders on bridge* – The inclusion of design standard sidewalks and shoulders on the new structure will enhance river access by allowing pedestrian users to easily cross the bridge.

- *Maintain access to river* – Route 49 in the project vicinity is not an access controlled facility. No prohibitions to crossing State property for river access currently exist and this will be maintained at the conclusion of the project. An existing maintenance access road at the southwest corner of the bridge is proposed to be surfaced to improve access for maintenance, though it will remain gated. In doing so, improved access will be provided for recreational river users.
- *Paved parking area (near highway)* – A total of 10 parallel parking spaces are proposed to be constructed on the south side of Route 49 on the west end of the bridge. Their location is dictated by design standards for sight distance. Additionally, a maintenance vehicle pullout (MVP) is planned for the north side of Route 49 on the east end of the bridge. When not in use by maintenance forces, the public could use it for parking.
- *Informal parking* – The existing informal parking on Lotus Road across from the Sierra Nevada House business will not be changed as part of this project as this area is located outside State R/W and outside the project limits. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (storage, etc.).
- *Demarcate right of way lines* – Signs will be posted to identify the limits of State right of way. This will help prevent trespassing onto private property by providing guidance to river users accessing the area around the bridge.

Constructing the access improvements identified above would have the following impacts:

- *Environmental Impacts*
Impacts associated with river access improvements are expected to be minimal since recreational river access already occurs on all four corners of the existing bridge and the improvements do not have significant impacts (See Environmental Document, Attachment M).
- *Construction and Maintenance Costs*
Wider shoulders and sidewalks are included in the project to meet current design standards, so no additional cost is associated with them in regards to improving river access. Similarly, paving the maintenance road is included in the project, so no additional cost is associated with it as well. Maintaining the current access control status (no restrictions to access) has no cost.

The additional initial cost for paved parking spots is minor and includes additional asphalt concrete, base material, striping, signing, and drainage work, and ongoing maintenance costs should be minor.

Maintaining the current informal parking across from Sierra Nevada House business has no construction or maintenance costs.

Signs marking the right of way will have minimal initial costs and likely to have minimal maintenance costs, depending on the amount of vandalism that occurs.

- *Pedestrian Accessibility*

This project will improve accessibility to the river for the general public. This is a result of the improvements identified above and due to the removal of vegetation from bridge abutments fills. Inclusion of a developed ADA compliant trail into the river floodplain was considered, but not deemed practical or warranted given there are no developed facilities in the flood plain. If a public boat ramp was being included in the project (see next section), providing an ADA compliant trail may have been warranted.

7G. Public Boat Ramps

Consultations were made with the following State and Federal agencies regarding providing a vehicular access ramp (constructed by Caltrans) to a public boat launching area adjacent to State right of way (constructed by others). None of the agencies listed below indicated they had any plans to construct a public boat launching area at this time.

- a. United States

- Army Corps of Engineers
- Fish and Wildlife Service
- Department of the Interior Bureau of Reclamation
- National Marine Fisheries Service
- Forest Service
- Department of the Interior Bureau of Land Management

- b. California

- Department of Fish and Wildlife
- State Lands Commission
- Department of Parks and Recreation
- Division of Boating and Waterways

7H. Transportation Management Plan for Use During Construction

A Transportation Management Plan (TMP) Data Sheet was prepared for this project to document expected issues and needs during construction, provide estimated traffic control related costs, and provide recommendations for minimizing impacts to the travelling public (see TMP, Attachment R). A formal TMP will be prepared during the design phase for use during construction. The following list highlights some of

the important information contained in the TMP Data Sheet. See the attached TMP Data Sheet for full details:

- Maximum lane closure length is 0.8 miles.
- A minimum of one 11' lane is required to be open at all times, and two lanes should be open when construction is not actively in progress.
- A minimum 4' shoulder should be open at all times for pedestrian and bicycle use.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays, the day preceding designated legal holidays, and when construction operations are not actively in progress.

During the course of studies, the project area was identified as having a busy recreational season from mid-June to mid-August. Specifically, the adjacent segment of river is heavily used by swimmers and boaters creating heavy vehicle traffic and pedestrian use on the bridge and through the area, especially on weekends.

The community stressed that it was important for Caltrans to minimize impacts to these users since the community relies on these visitors for business. Full roadway closures and 24 hour reversing traffic control should be avoided to the extent possible, especially during the identified busy months. The viable alternatives contained in this draft project report were selected considering these concerns. See section 5A, Viable Alternatives, and the Stage Construction section below for additional information.

7I. Stage Construction

Stage construction work will be needed for this project. Preliminary studies have been completed on the potential staging scenarios for the recommended alternative as summarized below.

- Alternative 3A: New Bridge to the North (Preferred Alternative)

The construction sequence for this alternative would need four discrete phases to complete the new structure. It is anticipated the contractor would use the following phase sequence:

- A. Construct a portion of the new structure on the north side.
- B. Demolish the existing structure.
- C. Construct the remaining width of the new structure on the south side.
- D. Perform a closure pour to connect the two new bridge segments.

This construction sequencing minimizes the amount of reversing traffic control required to construct the structure. Also, any need for 24 hour

reversing traffic control can likely be scheduled to avoid the busy season, holidays, and special events.

Stage construction work will also be needed to complete the vertical curve stopping sight distance improvement to the east of the bridge. It is anticipated that a few weeks of 24 hour reversing traffic control will be needed. This work can likely be scheduled to avoid the busy season, holidays, and special events. It may be possible to avoid 24 hour reversing traffic control with the use of temporary widening and steep slopes during the work, but reversing traffic control would still be needed while the construction is actively in progress.

7J. Accommodation of Oversize Loads

Studies for accommodation of oversize loads are not applicable to non-freeway projects.

7K. Graffiti Control

The existing bridge abutments and piers have graffiti on them. However, the bridge is not in an identified graffiti prone area. Any efforts to restrict access to the abutments and piers would reduce access to the river, which is contrary to project development requirements. Additionally, any features placed below the 100 year design flood elevation would be subject to flood waters and therefore be an additional maintenance item. It is recommended that no action be taken on this issue.

7L. Other Appropriate Topics

Seasonal Traffic

As previously noted, the area surrounding the bridge is heavily trafficked in the summer by people seeking recreational opportunities. The recommended alternative minimizes impacts to vehicular traffic and pedestrian users, especially during the identified “busy” season from mid-June to mid-August.

8. FUNDING/PROGRAMMING

Table 4: Programmed Capital Outlay Support and Project Estimates

Fund Source	Fiscal Year Estimate							
	Prior	2012/13	2013/14	2014/15	2015/16	2016/17	Future	Total
20.XX.201.113 20.30.600.620*								
Component	In thousands of dollars (\$1,000)							
PA&ED Support**					1,700			1,700
PS&E Support***					2,500			2,500
Right-of-Way Support***					400			400
Construction Support***					2,800			2,800
Right-of-Way					499			499
Construction					14,408			14,408
Total					22,307			22,307

* EDCTC is contributing \$500,000 from construction capital from their share of the STIP (RIP).

** A Program Change Request was approved on June 25, 2014 approving the district's request to increase this amount to \$1.5 million. Due to Project Management Directive 022, the programming amount in the California Transportation Improvement Program System will not change for the PA&ED phase. The PA&ED increase from \$1.5 million to \$1.7 million was a result of an additional one-sided widening alternative studied at the request of the HQ SHOPP program manager.

*** PCR has been prepared to increase the support budget to reflect the preferred alternative resource needs for the noted phases. The PCR will be submitted to HQ for approval in the March 2015 cycle.

The overall support cost ratio is 51%. This project is eligible for federal aid funding.

9. SCHEDULE

Table 5: Project Schedule

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
Program Project	M015	03/28/12
Begin Environmental	M020	08/01/12
Circulate DPR & DED Externally	M120	10/17/14
PA & ED	M200	03/16/15
Draft Project PS&E	M377	1/25/16
Draft Structures PS&E	M378	12/18/15
Project PS&E	M380	4/4/16
Right of Way Certification	M410	5/2/16
Ready to List	M460	5/16/16
Award	M495	11/28/16
Approve Contract	M500	12/12/16
Contract Acceptance	M600	1/12/19
End Project	M800	1/12/22

10. RISKS

There are no active high priority risks identified for the project.

A project Risk Register was prepared for this project in which all identified risks are listed and discussed along with proposed mitigations (See Risk Register, Attachment S).

11. FHWA COORDINATION

This project is considered to be a Delegated Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

12. PROJECT REVIEWS

Scoping team field review		Date	1/15/13
(Attendees: Clark Peri, Christine Manner, Dan Bolster, Justin Unck, Karen Basra, Kathleen Grady, Maggie Ritter, Nesar Formoli, Suzanne Melim, Bill Brook, and Sean Cross)			
District Program Advisor	David Lamb	Date	6/20/14
Headquarters SHOPP Program Advisor	Mike Johnson	Date	6/20/14
District Maintenance	Ed Ingram	Date	6/20/14
Headquarters Design Coordinator		Date	n/a
Project Manager	Jess Avila	Date	6/20/14
FHWA		Date	n/a
District Safety Review	Kevin Espinosa	Date	6/20/14
Constructability Review	Ann Murphy	Date	6/20/14
Safety Review	Review Committee	Date	6/20/14

13. PROJECT PERSONNEL

Bill Brook, Area Bridge Construction Engineer	(916) 858-8630
Bob Erickson, Area Construction Engineer	(916) 858-8627
Jess Avila, Project Manager	(530) 741-4533
Ron Tollison, Project Engineer	(530) 741-5380
Karen Basra, Right of Way	(530) 741-4565
Maggie Ritter, Environmental Coordinator	(530) 741-4535
W. Keith Mack, North Region Design-South Liason	(530) 741-4292
Nesar Formoli, Design Senior	(530) 741-4462

14. ATTACHMENTS

- A . Location Map
- B . Alternative 3A: Typical Cross Sections and Layouts
- C . Alternative 3B: Typical Cross Sections and Layouts
- D . Alternative 3A: Structures Planning Study
- E . Alternative 3B: Structures Planning Study
- F . Preliminary Structural Section Recommendation
- G . Landscape Architecture Assessment Sheet
- H . Storm Water Data Report
- I . Pavement Condition Summary Report
- J . Cost Estimates
- K . Right of Way Data Sheets
- L . Hazardous Waste Site Assessment
- M . Environmental Document
- N . Access Improvements Study Map
- O . Access Improvements Study Summary
- P . Access Improvements To Be Included In Project
- Q . Existing River Access in the Project Vicinity
- R . Transportation Management Plan Data Sheet
- S . Project Risk Register
- T . Programming Sheet

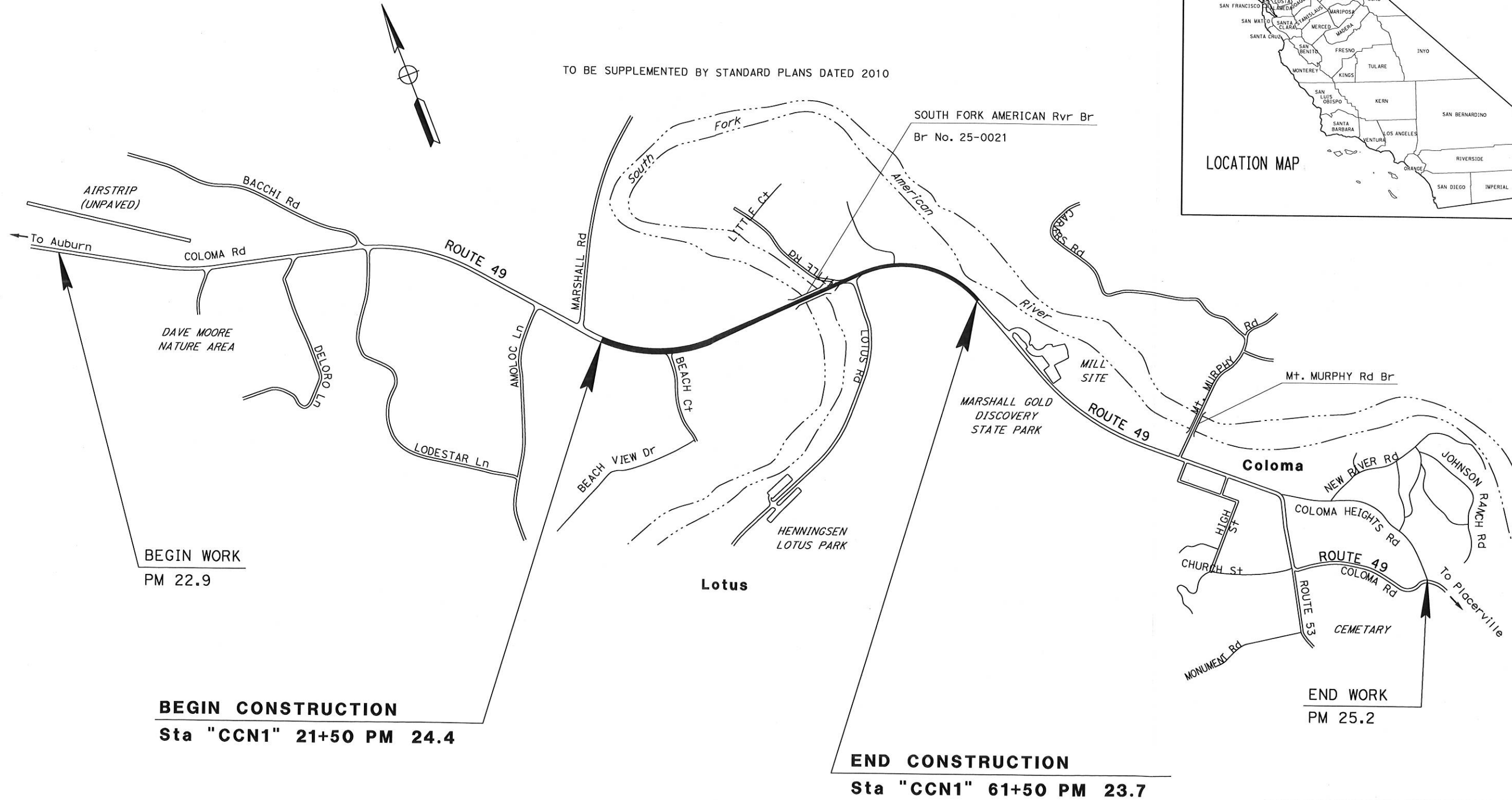
Attachment A

Location Map

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	49			

LOCATION MAP



PROJECT MANAGER

DESIGN ENGINEER

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES)
OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE



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CONTRACT No.	03-0F3104
PROJECT ID	0300000078

UNIT 0334 PROJECT NUMBER & PHASE 03000000781

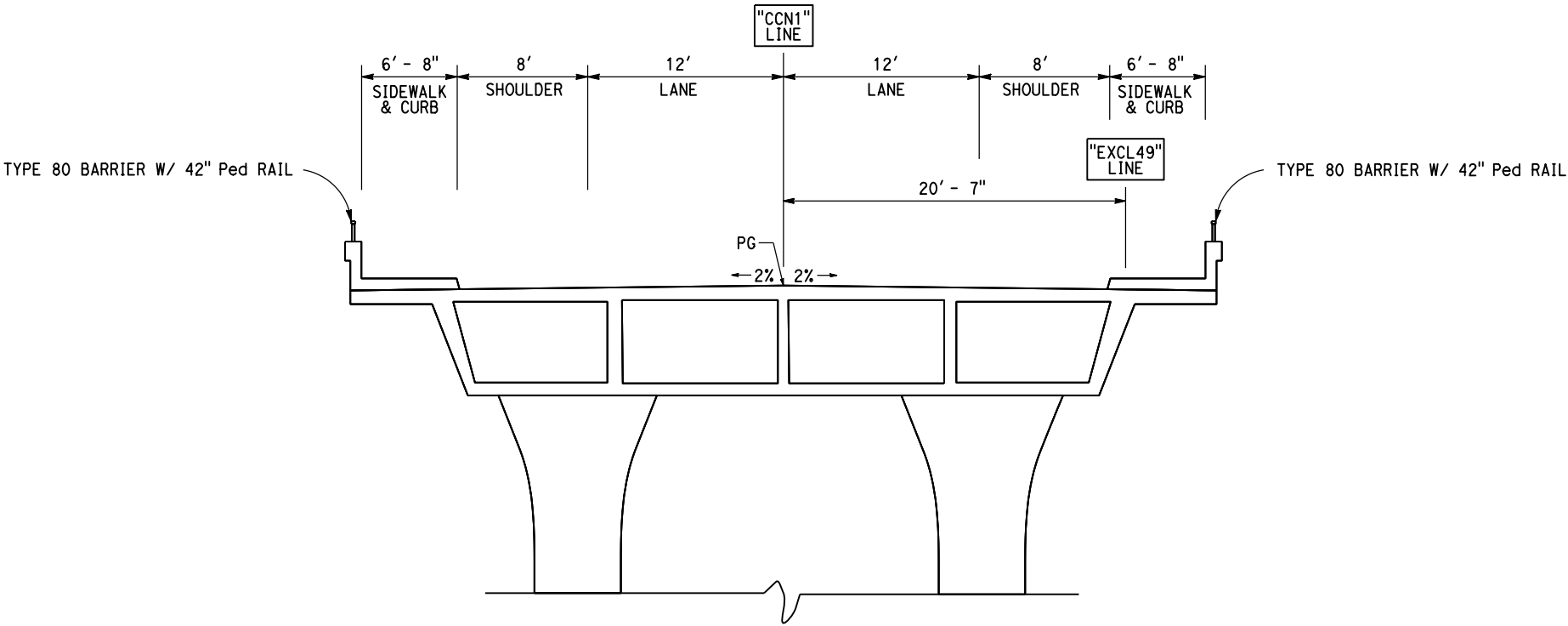
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Attachment B

Alternative 3A: Typical Cross Sections and Layouts

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR		CALCULATED- DESIGNED BY	REVISOR BY		
			CHECKED BY	DATE	REVISOR BY	

NOTES:
1. NO SCALE



Sta 39+63 TO 44+65

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY ONLY

REGISTERED CIVIL ENGINEER DATE

7 / 22 / 14

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

Alt 3a: New Bridge to the
North, Variation CCN1
BRIDGE TYPICAL SECTION

USERNAME => e127431

RELATIVE BORDER SCALE

0

1

2

3

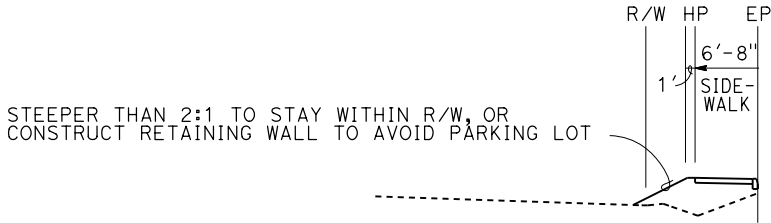
UNIT: 2000

PROJECT NUMBER & TITLE

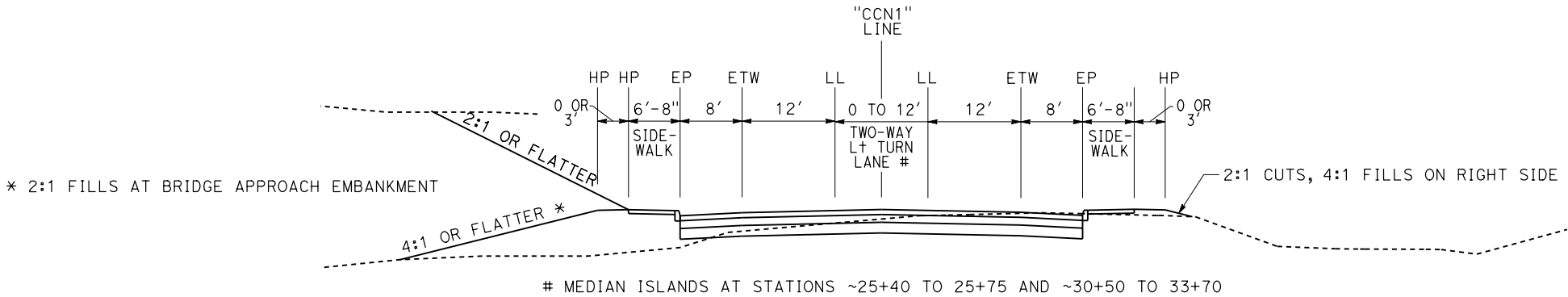
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LAST REVISION | DATE PLOTTED: 07/22/2014

1. CUT REQUIRED ALONG LITTLE ROAD (AT NORTH EAST CORNER OF BRIDGE) TO ALLOW FOR REALIGNMENT. CUT UP TO 1:1 MAY BE REQUIRED TO MINIMIZE SIZE OF CUT, OR POSSIBLE RETAINING WALL.
2. WHERE SPACE IS AVAILABLE, FILL SLOPES WILL BE 4:1 OR FLATTER.



AT Sta 36+00 TO 36+50 (+/-)



Sta 21+50 TO 39+63

Alt 3a: New Bridge to the North,
Variation CCN1

ROAD TYPICAL SECTIONS

NO SCALE

X-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	49	23.99		

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

JUSTIN A. UNCK

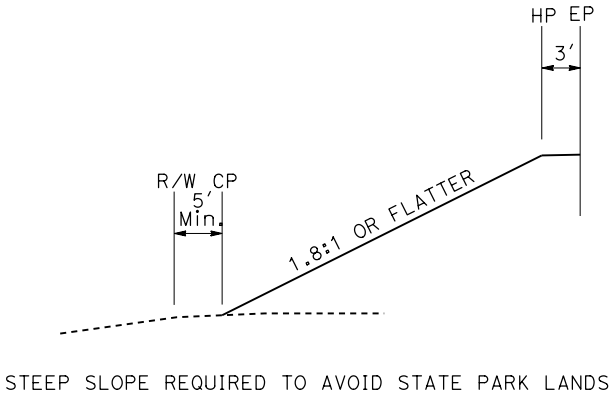
No. 65889

Exp. 12/31/15

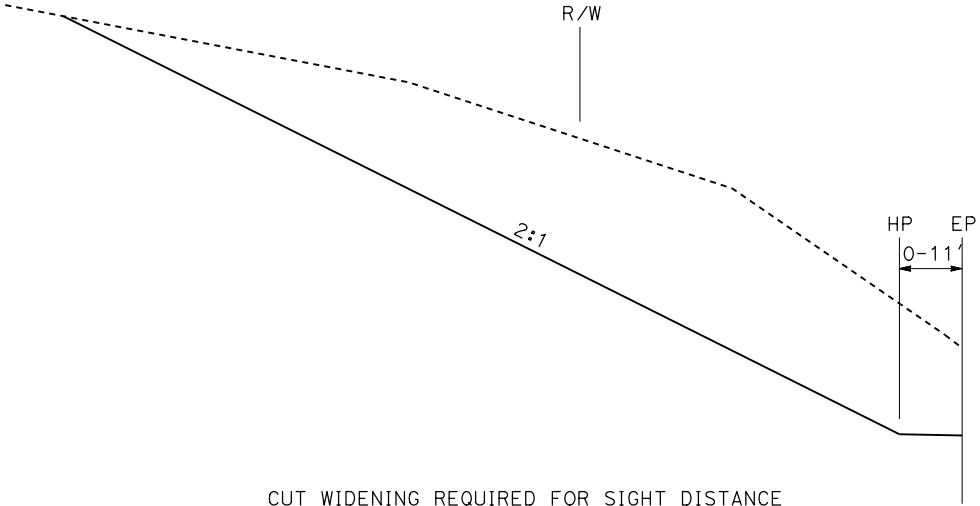
CIVIL

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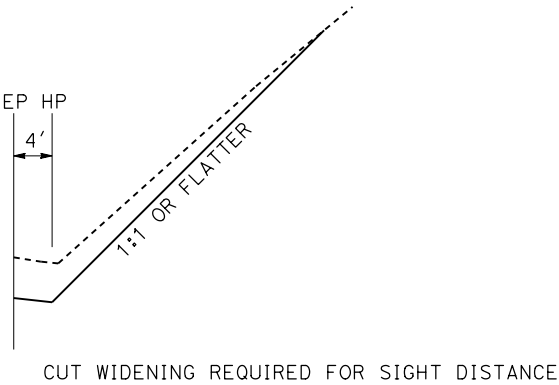
1. CUT REQUIRED ALONG LITTLE ROAD (AT NORTH EAST CORNER OF BRIDGE) TO ALLOW FOR REALIGNMENT. CUT UP TO 1:1 MAY BE REQUIRED TO MINIMIZE SIZE OF CUT, OR POSSIBLE RETAINING WALL.
2. WHERE SPACE IS AVAILABLE, FILL SLOPES WILL BE 4:1 OR FLATTER.



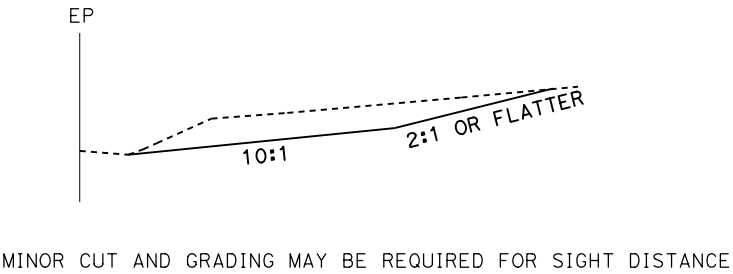
AT Sta 57+50 TO 61+00 (+/-)



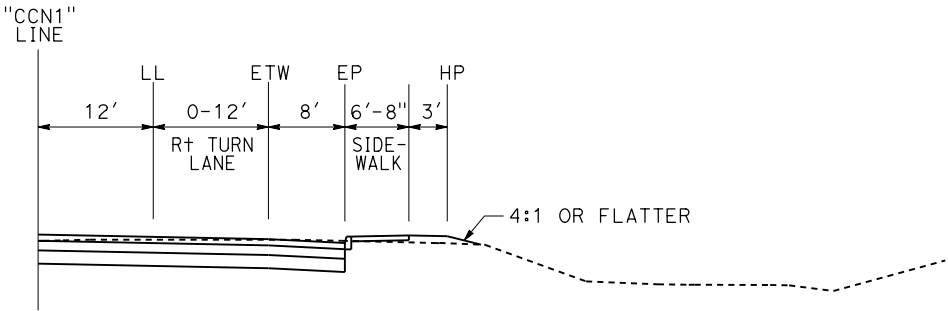
AT Sta 45+50 TO 48+50 (+/-)



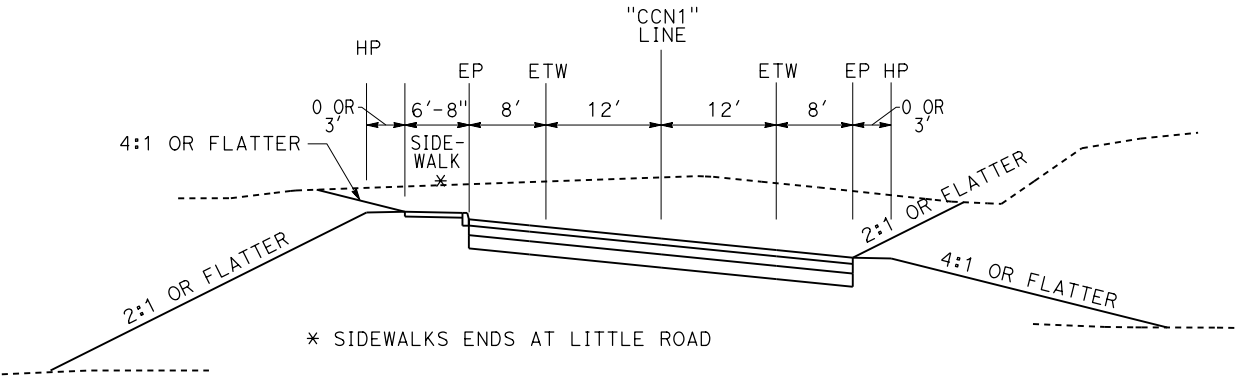
AT Sta 52+00 TO 57+50 (+/-)



AT Sta 48+00 TO 52+00 (+/-)



AT Sta 44+65 TO 47+00



Sta 44+65 TO 61+50

Alt 3a: New Bridge to the North,
Variation CCN1

ROAD TYPICAL SECTIONS

NO SCALE

X-2

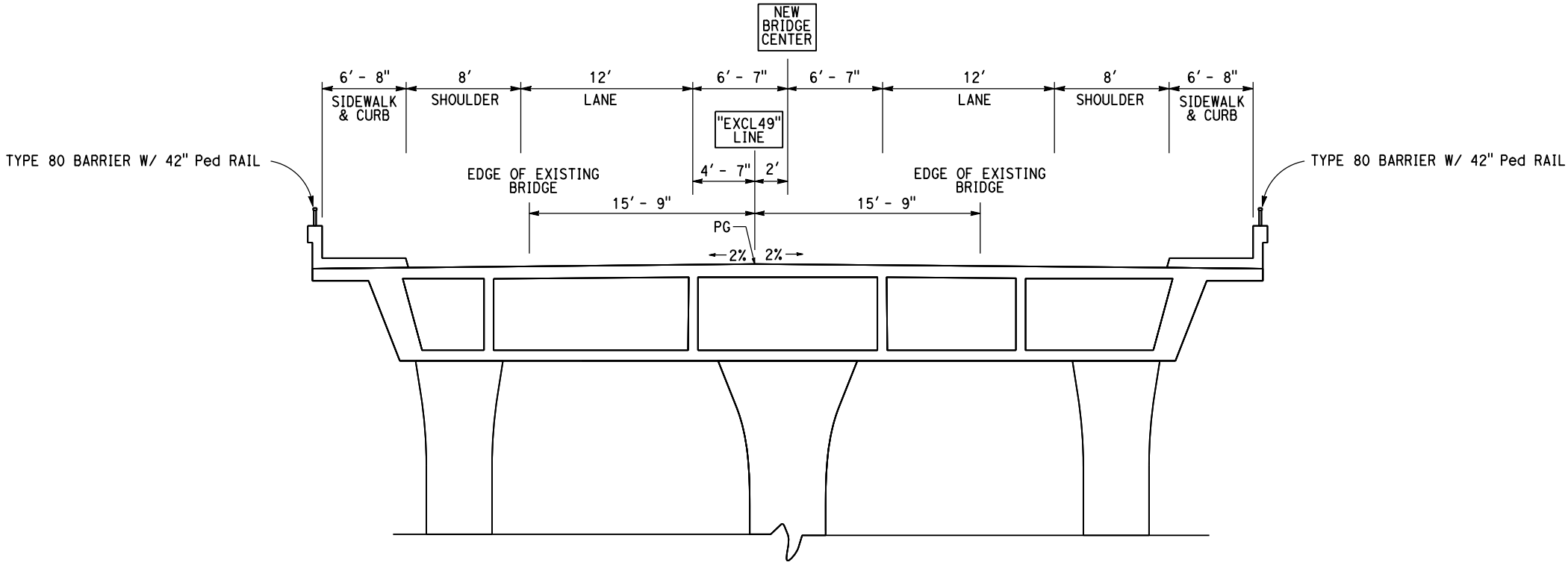
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	49	23.99		
REGISTERED CIVIL ENGINEER DATE					
PLANS APPROVAL DATE					
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Attachment C

Alternative 3B: Typical Cross Sections and Layouts

NOTES:
1. NO SCALE



Sta 39+76 TO 44+78

Alt 3b: New Bridge on the Existing Alignment, Variation TSS1
BRIDGE TYPICAL SECTION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER

No.

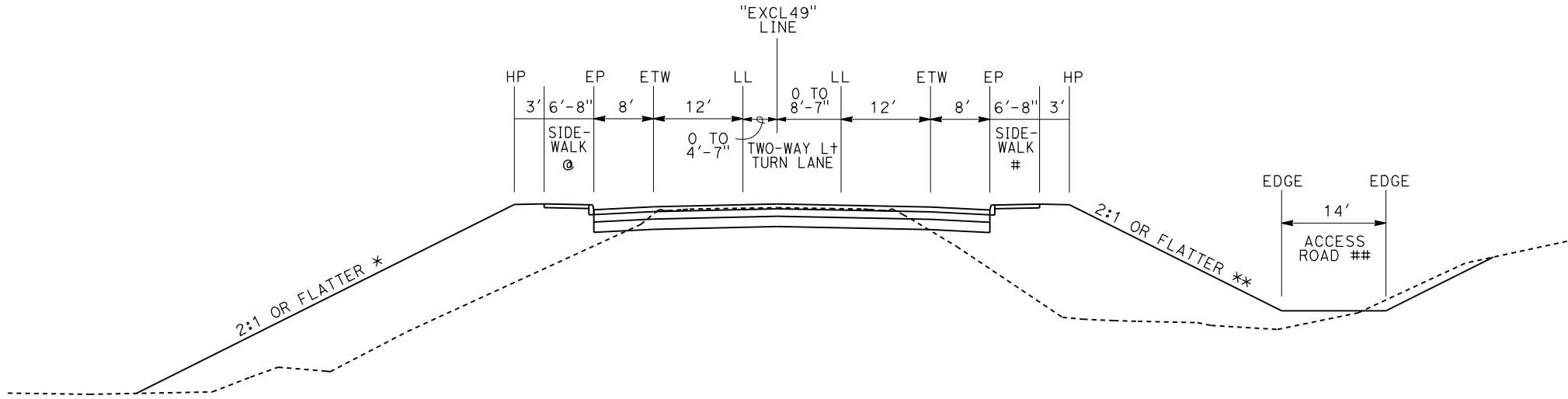
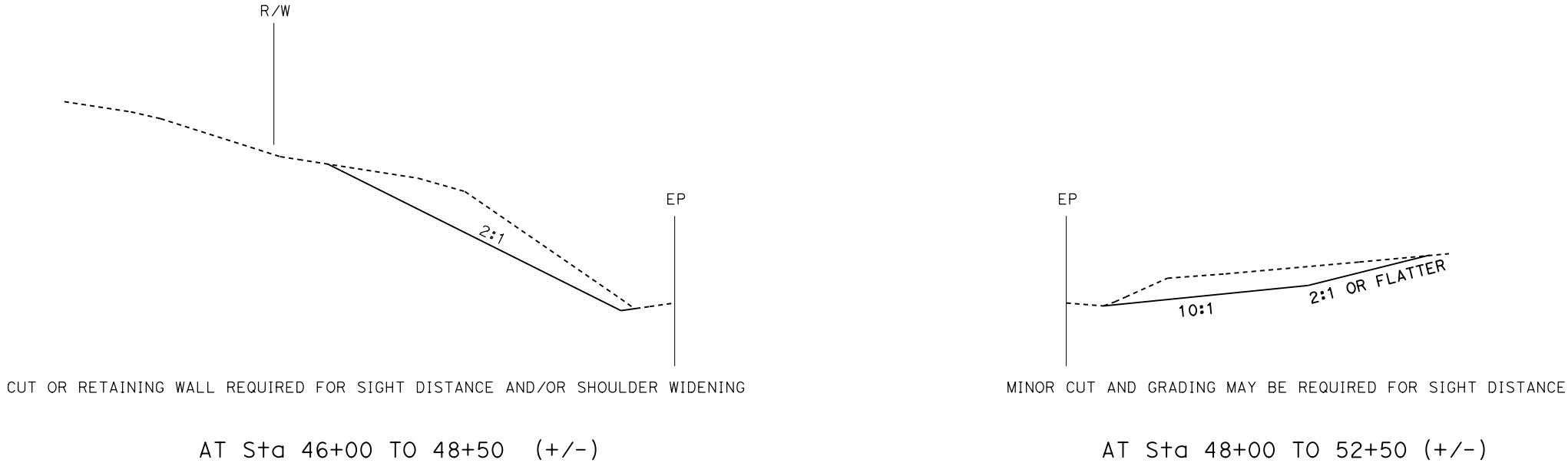
Exp.

CIVIL

STATE OF CALIFORNIA

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1. CUT REQUIRED ALONG LITTLE ROAD (AT NORTH EAST CORNER OF BRIDGE) TO ALLOW FOR REALIGNMENT, IF REALIGNMENT REQUIRED. CUT UP TO 1:1 MAY BE REQUIRED TO MINIMIZE SIZE OF CUT, OR POSSIBLE RETAINING WALL.
2. WHERE SPACE IS AVAILABLE, FILL SLOPES WILL BE 4:1 OR FLATTER.



- * Sta 39+00 (+/-): STEEPEN SLOPE SLIGHTLY TO STAY WITHIN R/W
- ** Sta 38+50 TO 39+76 (+/-): RETAINING WALL OR 1.5:1 SLOPE REQUIRED
- ## ACCESS ROAD ON SOUTHWEST CORNER OF BRIDGE
- # SIDEWALK ENDS AT LOTUS ROAD ON EAST END OF PROJECT
- @ SIDEWALK ENDS AT LITTLE ROAD ON EAST END OF PROJECT

Sta 37+00 TO 39+76
Sta 44+78 TO 52+50

- LEGEND:
- PROPOSED TCE
 - - - - - PROPOSED R/W ACQUISITION
 - CUT
 - - - - - FILL
 - EXISTING RIGHT OF WAY

- ABBREVIATIONS:
- TCE TEMPORARY CONSTRUCTION EASEMENT
 - CP OBTAIN COUNTY PERMIT



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
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COPIES OF THIS PLAN SHEET.

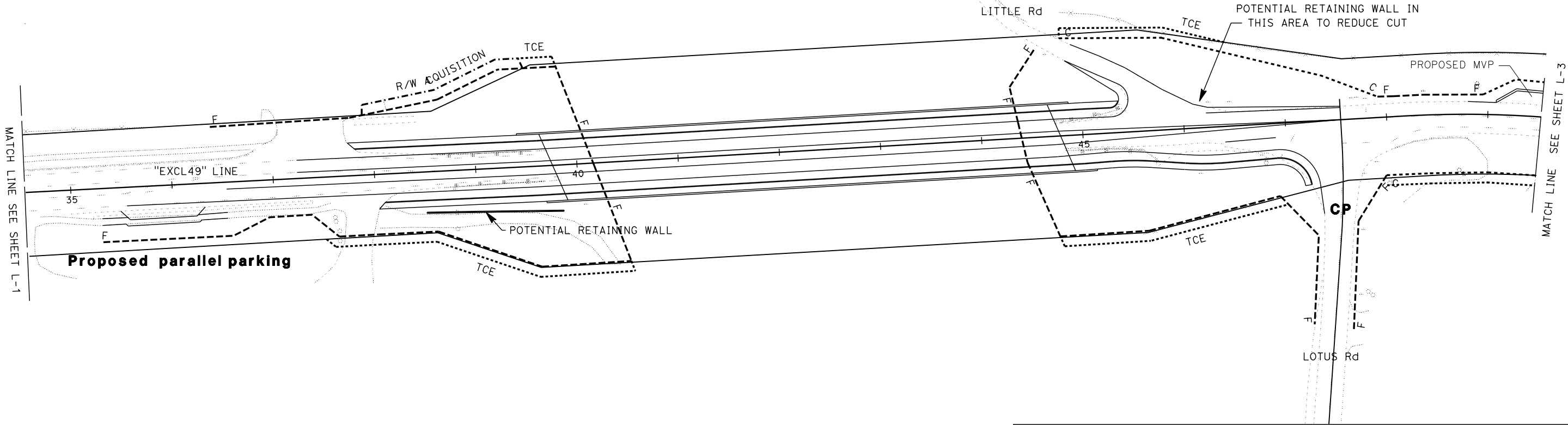
REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

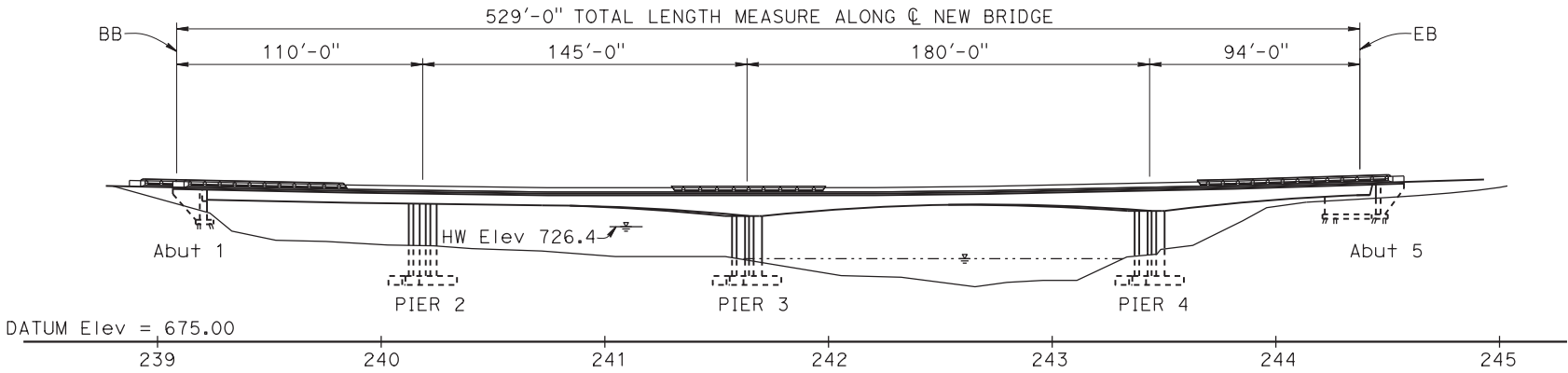


**ALTERNATIVE 3B: NEW BRIDGE ON THE
EXISTING ALIGNMENT**
03-ED-49 EA 0F3100
LAYOUT
SCALE: 1" = 50'

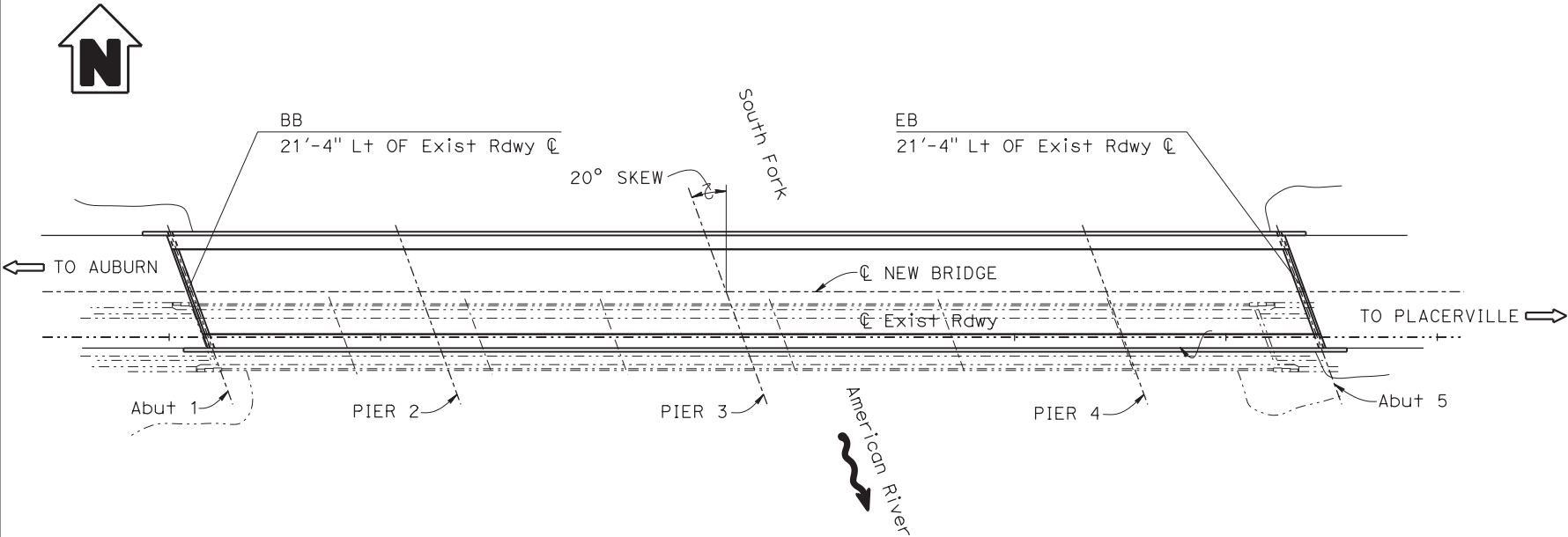
Attachment D

Alternative 3A: Structures Planning Study

DIST	COUNTY	ROUTE	POST MILE
03	ED	49	23.99



ELEVATION
1" = 40'-0"
EXISTING BRIDGE NOT SHOWN FOR CLARITY



PLAN
1" = 40'-0"

ASSUMPTIONS:

1. Construction and demolition access is required via temporary gravel fill and driven pile trestle both upstream and downstream of the existing bridge.
2. Falsework piles will be driven in the river.
3. A 20' wide boat passage opening will be maintained in the wetted channel.
4. The footing at existing Pier 7 will be removed. Other pier footings will remain.
5. Any new river footings require a cofferdam and excavation Type D.
6. Type 80SW (Mod) barrier has a 6'-8" wide sidewalk and aesthetic treatment.
7. Bridge deck drainage is not carried off the structure. It is discharged to the river.
8. Existing bridge paint systems include lead and chromate.

LEGEND:

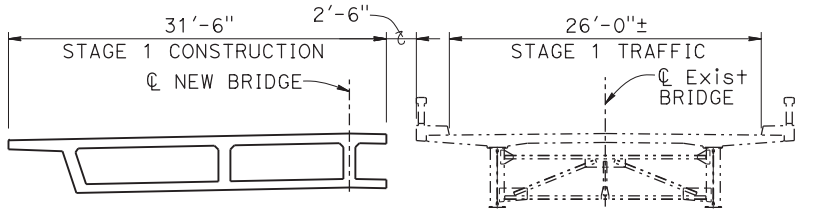
- (A) Temporary Railing Type K
- (B) Concrete Barrier Type 80SW (Mod)
- Indicates existing
- ▨ Indicates closure pour

DATE OF ESTIMATE	3-04-14
BRIDGE REMOVAL	= \$423,300
STRUCTURE DEPTH	= VARIES
LENGTH	= 529'-0"
WIDTH	= 56'-10"
AREA	= 30,065 SQ FT
COST/□ INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$218
TOTAL COST	= \$6,933,000

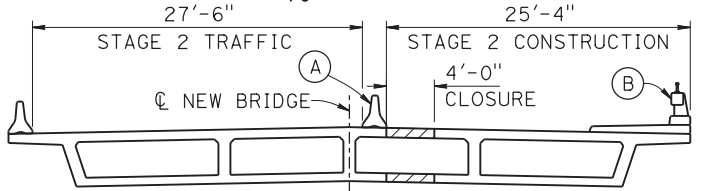
INCOMPLETE PLAN
FOR DESIGN STUDY
PRINTED

DATE: 07-MAR-2014

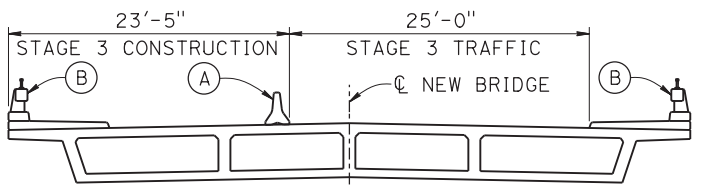
Office of Structure Design
STATE OF CALIFORNIA



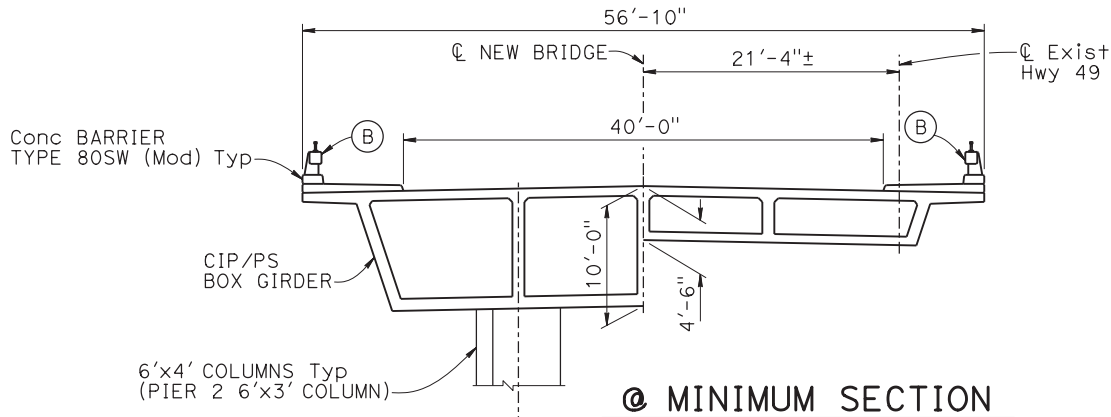
STAGE 1
1/8" = 1'-0"



STAGE 2
1/8" = 1'-0"



STAGE 3
1/8" = 1'-0"



@ MINIMUM SECTION

@ MAXIMUM SECTION

TYPICAL SECTION
1/8" = 1'-0"

ALTERNATIVE NO. 3 - CCN1

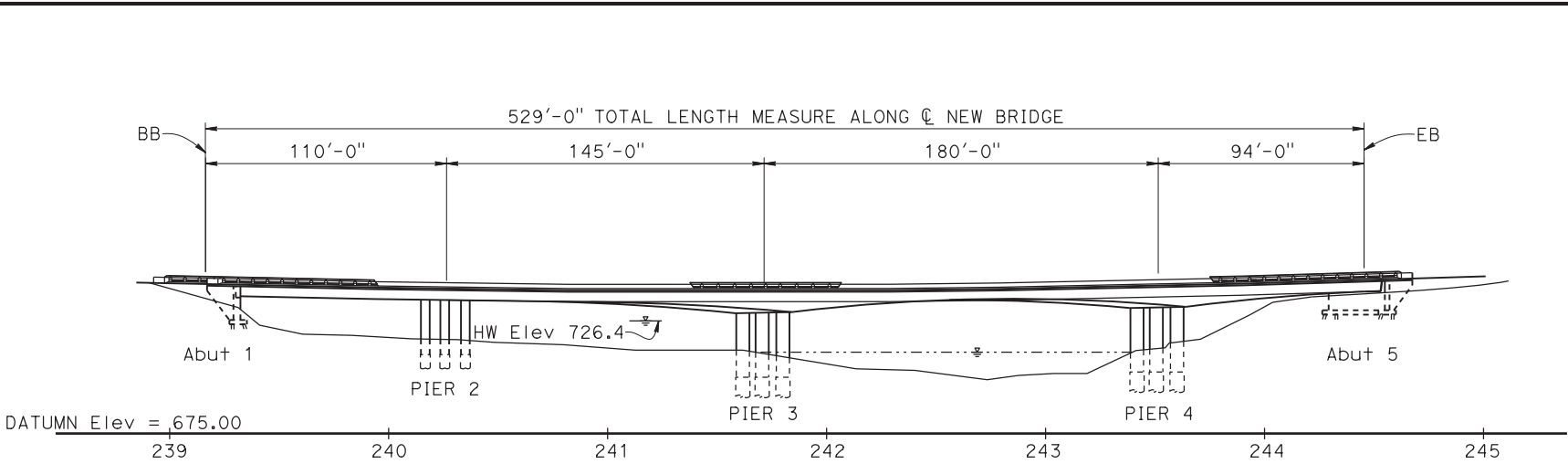
PLANNING STUDY

BRIDGE ACROSS SOUTH FORK OF AMERICAN RIVER

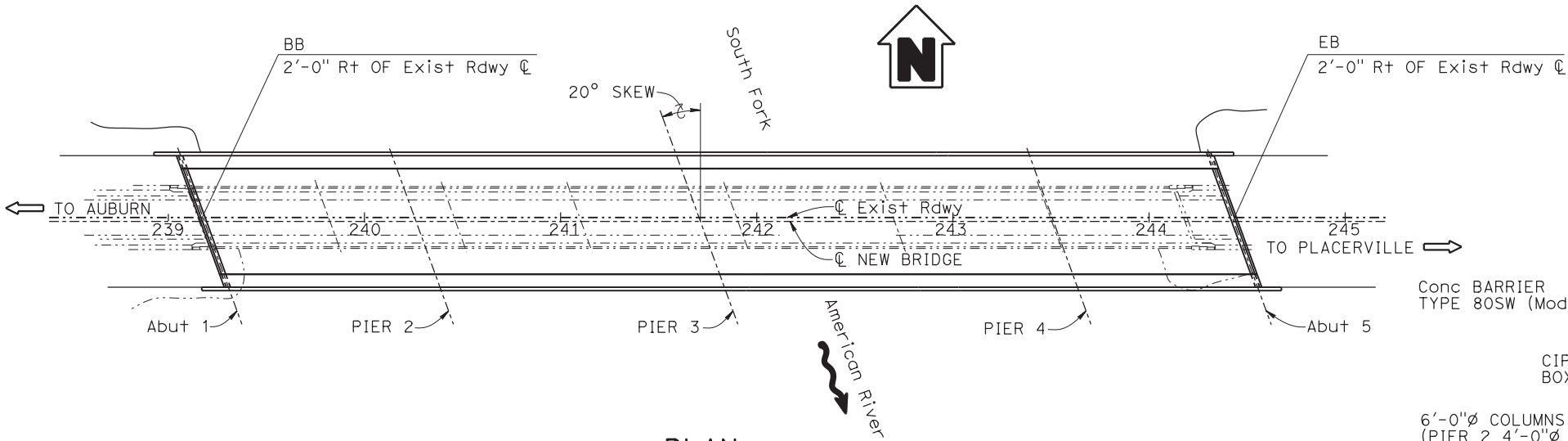
UNIT: 3577	BRIDGE No. 25-0021
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300000078

Attachment E

Alternative 3B: Structures Planning Study



ELEVATION
1" = 40'-0"
EXISTING BRIDGE NOT SHOWN FOR CLARITY



PLAN
1" = 40'-0"

ASSUMPTIONS:

1. Construction and demolition access is required via temporary gravel fill and driven pile trestle both upstream and downstream of the existing bridge.
2. Falsework piles will be driven in the river.
3. A 20' wide boat passage opening will be maintained in the wetted channel.
4. The footing at existing Pier 7 will be removed. Other pier footings will remain.
5. Any new river footings require a cofferdam and excavation Type D.
6. Type 80SW (Mod) barrier has a 6'-8" wide sidewalk and aesthetic treatment.
7. Bridge deck drainage is not carried off the structure. It is discharged to the river.
8. Existing bridge paint systems include lead and chromate.

LEGEND:

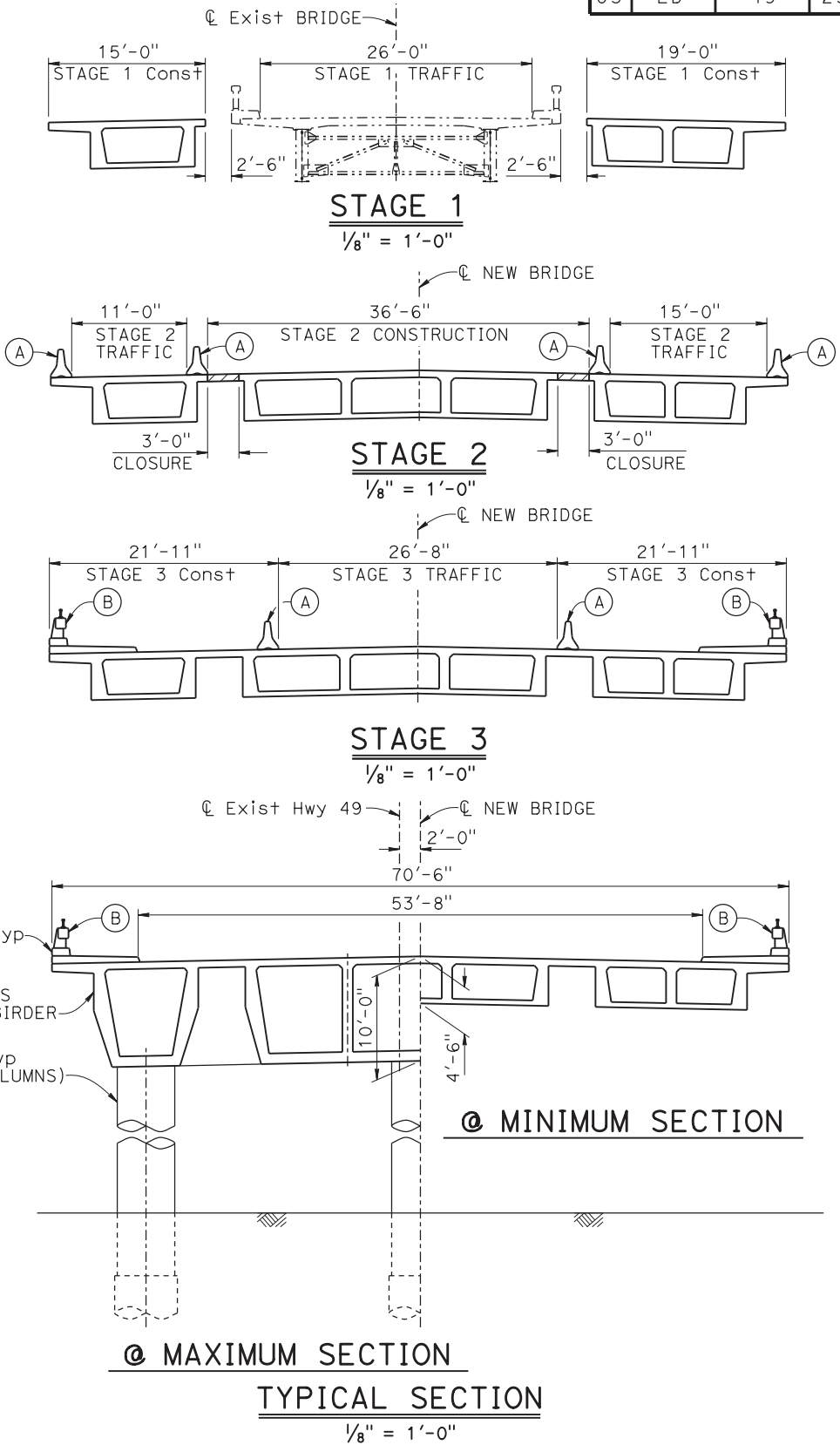
- (A) Temporary Railing Type K
- (B) Concrete Barrier Type 80SW (Mod)
- Indicates existing
- /// Indicates closure pour

DATE OF ESTIMATE	3-06-14
BRIDGE REMOVAL	= \$423,300
STRUCTURE DEPTH	= VARIES
LENGTH	= 529'-0"
WIDTH	= 70'-6"
AREA	= 37,295 SQ FT
COST/ \square INCLUDING	
10% MOBILIZATION &	= \$211
25% CONTINGENCY	
TOTAL COST	= \$8,260,000

INCOMPLETE PLAN
FOR DESIGN STUDY
PRINTED

DATE: 07-MAR-2014

Office of Structure Design
STATE OF CALIFORNIA



DESIGNED BY	J. LYNCH	DATE	1/2014
DRAWN BY	C. FIGUERRES	DATE	1/2014
CHECKED BY		DATE	
APPROVED	G. SETBERG	DATE	3/2014

**STRUCTURE
DESIGN
BRANCH**

2

ALTERNATIVE NO. 3 - TSS1	
PLANNING STUDY	
BRIDGE ACROSS SOUTH FORK OF AMERICAN RIVER	
UNIT: 3577	BRIDGE No. 25-0021
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300000078

Attachment F

Preliminary Structural Section Recommendation

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. JUSTIN UNCK, PE
Design Branch S7

Date: July 5, 2013

File: 03-ED-49
PM 23.99
03-0F3100
03 0000 0078

Draft

From: DAN FERCHAUD
District Materials Engineer
North Region – Materials Laboratory

Subject: **Preliminary Structural Section Recommendation**

As requested in your email to Julia Rockenstein dated June 24, 2013, a structural section recommendation has been made for the above referenced project. Caltrans M-E design was used on this recommendation. The following assumptions have been made:

R-Value = 23 (Assumed)
 $TI_{20} = 9.5$ (from Traffic Data)

STRUCTURAL SECTION RECOMMENDATIONS

Existing

Locate areas of severe failure identified by rutting greater than 0.5-in and/or loose and spalling pavement. Dig out a minimum of 3-inches, repair the identified areas with HMA-A, and seal all cracks wider than 0.2-in. Overlay the existing pavement with 0.15' HMA-A.

Existing – Lower Profile at Bridge Conform

Cold plane existing pavement to 0.15' below finished grade. Overlay with 0.15' HMA-A.

NOTE: Preliminary design for estimate only. A deflection study will need to be performed to determine limits of cold plane if existing AC on bridge deck exceeds 0.15'.

Mainline, Shoulder & Roadway Connections - New Structural Section $TI_{20} = 9.5$

0.30' HMA-A
1.10' AB (Class 2)
1.40' Total

Commercial Driveway – New Structural Section

0.20' HMA-A
0.35' AB (Class 2)
0.55' Total

Draft

Private Driveway – New Structural Section

0.15' HMA-A
0.35' AB (Class 2)
0.50' Total

MATERIALS SPECIFICATIONS

Hot Mix Asphalt –Type A (HMA-A) - shall conform to section 39 of the Standard Specifications and the Special Provisions.

Aggregate Base (AB) – Class 2 – shall conform to section 26 of the Standard Specifications.

Asphalt Binder – Asphalt binder used for HMA-A shall be grade PG 64-28 and shall conform to sections 39 and 92 of the Standard Specifications.

Paint Binder – shall conform to sections 39, 92 and 94 of the Standard Specifications.

If you have any questions please contact Julia Rockenstein at (530) 741-5176 or myself at (530) 741-5378.

c: NFormoli
CPeri
JAvila
File

Attachment G

Landscape Architecture Assessment Sheet



TO: Justin Unck FROM: Lesley E. Morgan Unit/Senior TE Name: 000/Justin Unck Project Manager : Jess Avila	DISTRICT: 03 DATE 06/4/14 EA: 0F3100 EFIS ID# 0300000078	CO: ED	RTE: 49	PM: 23.99																
CONTRACT SEPARATION: <input checked="" type="checkbox"/> Landscape as part of roadway work EA <input type="checkbox"/> Landscape under separate EA (Follow-up) (See: http://www.dot.ca.gov/hq/LandArch/policy/pdf/separate_contract_policy.pdf for Separate Contract Policy)	PROJECT: South Fork American River Bridge FUNDING SOURCE: 2012 SHOPP Bridge Seismic Restoration program PROJECT MILESTONE: <input type="checkbox"/> PID <input checked="" type="checkbox"/> PA&ED <input type="checkbox"/> PS&E RTL: 2016 PROJECT COST : 14 million, <table border="1"><thead><tr><th>Alternative</th><th>Roadway</th><th>Structure</th><th>R/W</th></tr></thead><tbody><tr><td>2,Retrofit</td><td>\$1,000,000.00</td><td>\$7,8000.00</td><td>\$100,000.00</td></tr><tr><td>3,CNN1</td><td>\$5,000,000.00</td><td>\$4,500,000.00</td><td>\$400,000.00</td></tr><tr><td>3, TSS1</td><td>\$3,000,000.00</td><td>\$5,800,000.00</td><td>\$400,000.00</td></tr></tbody></table>				Alternative	Roadway	Structure	R/W	2,Retrofit	\$1,000,000.00	\$7,8000.00	\$100,000.00	3,CNN1	\$5,000,000.00	\$4,500,000.00	\$400,000.00	3, TSS1	\$3,000,000.00	\$5,800,000.00	\$400,000.00
Alternative	Roadway	Structure	R/W																	
2,Retrofit	\$1,000,000.00	\$7,8000.00	\$100,000.00																	
3,CNN1	\$5,000,000.00	\$4,500,000.00	\$400,000.00																	
3, TSS1	\$3,000,000.00	\$5,800,000.00	\$400,000.00																	
PROJECT DESCRIPTION The South Fork American River Bridge will be replaced or rehabilitated to meet seismic standards. Standard lanes, shoulders, and sidewalks will be included. Depending on the alternative, cut and fill slopes are part of the project. Retaining walls are possible. The following are the alternatives for the project: <ol style="list-style-type: none">1. "Alternative 2 (Seismic Retrofit with Widening) The existing steel girder bridge would be seismically retrofitted and widened, from 31.5' to 57', abutments and 6 piers will be widened to 12.75 feet. Center line remains the same location.2. Alternative 3a (New Bridge to the North, Variation CCN1) Construct a new concrete box bridge parallel alignment to the north 21 feet, of the existing alignment. This alternative widens the highway proposing more sliver cut and fill slopes. The highway will be modified 1850 feet west and 1650 feet east of the existing structure. The new structure will widen to 56'-10". The bridge will be 4 spans with girder depth ranging from 10 feet over the piers to 4 feet 6 inches over the river.3. Alternative 3b (New Bridge on the Existing Alignment, Variation TSS1) Construct a new concrete box bridge on the existing alignment. This alternative proposed to shift centerline of the existing bridge south 2 feet and construct 12ft. lanes, 13ft. center median, 8 ft. paved shoulders and 6.75 ft. sidewalks and curbs. This new structure will be the widest alternative, measuring 70' 6". This alternative has more fill slopes and there are less steep cuts slopes than Alternative 3a. For the new bridge to conform to the existing highway, slopes will be modified 450 feet west and 750 feet east of the existing structure.																				
SCENIC HIGHWAY STATUS <input type="checkbox"/> Officially Designated <input checked="" type="checkbox"/> Eligible <input type="checkbox"/> Not Designated (See: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm for Scenic Highway Mapping System)																				



**NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**
03-LAND-0002 (Rev. 2/13)

HIGHWAY PLANTING/IRRIGATION BACKGROUND INFO

LANDSCAPE FREEWAY STATUS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
WARRANTED HIGHWAY PLANTING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(E) H2O & POWER AVAILABLE	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(E) IRRIGATION IMPACTED	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
COOP. MAINT. AGREEMENTS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
ADJ. TO OUTDOOR ADVERTISING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Where: _____

Where: _____

AREA (Ft²/ACRE) FOR HIGHWAY PLANTING: N.A.

EROSION CONTROL BACKGROUND INFO

SOIL DISTURBANCE	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
CONCENTRATED FLOW AREAS	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
SLOPE LOCATIONS	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
SLOPES > 2:1	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

AREA (Ft²/ACRE) FOR EROSION CONTROL: TBD

Alternative 3 (New Bridge to the North, Variation CCN1)

This alternative has the largest disturbed area impact of all the alternatives. The nature of the soil in this project makes it difficult to use standard erosion control approaches to stabilize the top soil profile and accomplish 70% cover of vegetation in order to obtain a Notification of Termination (NOT).

At PA&ED the Storm Water Unit is unable to evaluate the risk level of the project until an alternative has been selected. The Office of Landscape Architecture requires the Risk Level designation to develop a comprehensive erosion control design. Surface erosion history in this area has been a problem to the extent that a Soils Resource Evaluation Pilot Study was done in 2008, by a geotechnical consultant, and Victor P. Claassen (Research soil scientist at Department of Land, Air and Water Resource Davis)

The geotechnical consultant observed the localized areas of surficial soil slumping. These areas generally consisted of loose, surficial granitic soils that apparently when saturated during precipitation events, moved down slope. This loose eroding soil characteristic prevents the establishment of vegetation in order to acquire a construction general permit to close the construction project.

MITIGATION BACKGROUND INFORMATION

PROJECT BIOLOGIST Cassandra Evenson

Contact Date: 06/12/14

BIOLOGICAL REVEG. REQUIRED ☒ Yes ☐ No

Applicable Permits: none

VISUAL IMPACT MIT. REQUIRED ☐ Yes ☒ No

UNIT TASKED w/ BIO. REVEG. ☐ Landscape Architecture ☐ Stewardship

Marguerite Ritter

PLANT COUNT FOR MITIGATION PLANTING/ _____

ROADSIDE MAINTENANCE SAFETY NEEDS

- ☐ Paving of Extended Gore Areas
- ☒ Paving of Narrow Areas
- ☐ Maintenance Vehicle Pullouts (MVPs)
- ☐ Other _____

(See: http://www.dot.ca.gov/hq/LandArch/policy/pdf/design_for_safety.pdf for Roadside Paving Design Memo)



ROADSIDE VEGETATION MANAGEMENT TREATMENT NEEDS

- ☒ Guardrails and Signs
 - ☒ Control of Noxious weeds Roadside Clearing SSP or edit the Earthwork SSP
- Notes Check with maintenance for use of herbicides on roadways

(See: <http://www.dot.ca.gov/hq/LandArch/roadside/index.htm> for potential treatment measures)

CONTEXT SENSITIVITY

- ☒ It is determined that the project may involve consideration of community and local involvement.

Quoted in the project report under "Community Interaction" a March 2001 public forum was held, it is noted that the public comments dealt with aesthetics and ways to lower vehicle speeds in the area. Highway 49 through the town of Lotus has existing traffic calming items, such as raised median with stamped paving. The proposed project will need to address the traffic calming goals of the community.

Regional Planning

The Sacramento Area Council of Governments (SACOG) provides a Metropolitan Transportation Plan, described to enhance and provide safe and efficient pedestrian facilities. The El Dorado County Transportation Commission (EDCTC) allocated money to provide safe and efficient pedestrian and bicycle facilities on the South Fork American River Bridge.

(See: <http://www.dot.ca.gov/hq/oppd/context/index.htm> for Context Sensitive Solutions guidance)

Project site is in a historical location and river is used for recreation, rafting.

CONSIDER ADDITIONAL AESTHETIC TREATMENT FOR:

- ☒ Bridge Structure Request to Structures Bridge Architecture to evaluate the architecture of bridge.
Structures is proposing concrete barrier Type 80SW (Mod). This barrier will need to be textured and stained. The piers need to be addresses for possible integrated shape and textured, Wing walls need to be textured.
- ☒ If retaining walls are included in the project, the architectural design, will need to be addressed.



**NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**
03-LAND-0002 (Rev. 2/13)

AESTHETIC TREATMENT

Request to Structures Bridge Architecture to review and provide hours, to address barrier, piers wingwalls and under girder design.

ENGINEERS ESTIMATE

Alternatives		(Alt 2) Retrofit	(Alt 3) TSS1	(Alt 3) CCN1
COST INFORMATION				
EROSION CONTROL				
<input checked="" type="checkbox"/> Soil Stabilization				
	BFM	\$10,266.24	\$22,131.78	\$ 79,772.09
	Compost	\$ 7,566.05	\$19,516.56	\$ 63,311.19
<input checked="" type="checkbox"/> Sediment Control	Fiber Rolls	\$ 8,100.00	\$17,445.63	\$ 18,027.25
<input checked="" type="checkbox"/> Soil Building	Incorporate Materials	\$ 5,573.10	\$ 9,987.72	\$ 19,828.20
<input checked="" type="checkbox"/> Long term cover	RECP (Netting)	\$48,397.97	\$16,266.06	\$ 83,487.16
PRELIMINARY EROSION CONTROL SUBTOTAL		<u>\$87,988.29</u>	<u>\$85,347.75</u>	<u>\$264,425.79</u>

ROADSIDE VEGETATION MANAGEMENT

- ☒ 832070 Minor Concrete Vegetation Control, SQYD
Under guardrail
☒ Stamped Paving in median

Area to be determined

Replace stamped paving in the town of Lotus
To be determined by Engineers

MITIGATION PLANTING COST INFORMATION:

- ☒ Landscape Architecture Tasked Biological Reveg.
Incorporate Materials \$7,000.00
☐ Visual Impact Mitigation Planting

ARCHITECTURE INFORMATION

- ☒ Bridge Architecture Engineers estimate
☒ Retaining wall Engineers estimate

PREPARED BY: Lestey Morgan

DATE: June 30, 2014

CONCURRED BY: [Signature]
(Project Manager)

DATE: 7-1-14

APPROVED BY: [Signature]
(Landscape Architecture or Engineering Services Branch Chief)

DATE: 6-30-2014

Attachment H

Storm Water Data Report

In Routing for Signatures



Dist-County-Route: 03- ED-49 _____
Post Mile Limits: 23.99 _____
Project Type: Bridge Replacement _____
Project ID (or EA): 0300000078 (03-0F3100) _____
Program Identification: 20.XX.201.113 (SHOPP), 20.30.600.620 (STIP-RIP)
Phase: ☐ PID
☒ PA/ED
☐ PS&E

Regional Water Quality Control Board(s): Central Valley Regional Water Quality Board _____

Is the Project required to consider Treatment BMPs? Yes ☒ No ☐

If yes, can Treatment BMPs be incorporated into the project? Yes ☒ No ☐

If No, a Technical Data Report must be submitted to the RWQCB

at least 30 days prior to the projects RTL date.

List RTL Date: 5/15/2016 _____

Total Disturbed Soil Area: 5.0 Acre _____ Risk Level: 2 _____

Estimated: Construction Start Date: 11/01/2017 _____ Construction Completion Date: 04/01/2020 _____

Notification of Construction (NOC) Date to be submitted: _____

Erosivity Waiver Yes ☐ Date: _____ No ☒
Notification of ADL reuse (if Yes, provide date) Yes ☐ Date: _____ No ☒
Separate Dewatering Permit (if yes, permit number) Yes ☒ Permit # See section 1* _____ No ☐

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Ron Tollison 3-2-2015
Ron Tollison, Registered Project Engineer Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Jesus Avila 3-2-15
Jesus Avila, Project Manager Date

Brian Toepfer 3/3/15
Brian Toepfer, Designated Maintenance Representative Date

T. Chris Johnson 3-5-15
T. Chris Johnson, Designated Landscape Architect Representative Date

[Stamp Required for PS&E only] Wesley Faubel _____
Wesley Faubel, District/Regional Design SW Coordinator or Designee Date



Evaluation Documentation Form

DATE: 1/16/2015

Project ID (or EA): 0300000078

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2
2.	Is this an emergency project?		✓	If Yes, go to 10. If No, continue to 3.
3.	Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits? Information provided in the water quality assessment or equivalent document.	✓		If Yes, contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4. <u>JF</u> (Dist./Reg. SW Coordinator initials) If No, continue to 4.
4.	Is the project located within an area of a local MS4 Permittee?		✓	If Yes. (write the MS4 Area here), go to 5. If No, document in SWDR go to 5.
5.	Is the project directly or indirectly discharging to surface waters?	✓		If Yes, continue to 6. If No, go to 10.
6.	Is it a new facility or major reconstruction?	✓		If Yes, continue to 8. If No, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?	<u>JF</u>		If Yes, continue to 8. If No, go to 10.
8.	Does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?	✓		If Yes, continue to 9. If No, go to 10. <u>1.0 Acre (Net Increase New Impervious Surface)</u>
9.	Project is required to consider approved Treatment BMPs.	✓		See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.
10.	Project is not required to consider Treatment BMPs. <u>JF</u> (Dist./Reg. Design SW Coord. Initials) <u>R.T.</u> (Project Engineer Initials) <u>3/5/15</u> (Date)			Document for Project Files by completing this form, and attaching it to the SWDR.

1 See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs

Attachment I

Pavement Condition Summary Report

Caltrans Maintenance Program

2011 Pavement Condition Survey Inventory

Caltrans Drive Order

District 3
County ED
Route 049
Begin PM 22.761

District 3, ED, Rte 049, PM 23.66 - 24.2

District 3																County ED		Route 049			
Begin PM - End PM			Length		LaneMi. (Est.)	Type	AADT (,000)		MSL												
Lane	Surface Type	Alligator Cracking			Rutting, Bleeding	Slab Cracking			Faulting	Patching		Ride, IRI	Priority	Skid	Defect						
		A %	B %	C (Y/N)?		1st %	3rd %	Corner %		Area %	Poor Cond.?										
22.761	-	23.783	1.022		2.044	2LNU	5	2													
L1	F -DG	12	0									13 118	32		ALL. A, NO ALL. B						
R1	F -DG	0	0									13 119	33		MISC. UNSEALED CRACKS						
23.783	-	23.985	0.202		0.404	2LNU	5	2													
L1	F -DG	0	0									34 200	6		RIDE						
R1	F -DG	0	0									9 103	99		NO DISTRESS OBSERVED						
23.985	-	24.080	0.095		0.190	2LNU	5	2													
L1	B											78 312	0		N/A - Bridge						
R1	B											56 255	0		N/A - Bridge						
24.080	-	24.683	0.603		1.206	2LNU	5	2													
L1	F -DG	0	0									34 200	6		RIDE						
R1	F -DG	0	0									32 192	6		RIDE						

*Surface type of 'EB' is Enhanced Binder.

Attachment J

Cost Estimates

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

Last Updated on 3/2/2015
by Ron Tollison

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

Project Description:

Limits PM 23.99

Proposed Improvement (Scope) Seismically retrofit the existing bridge or replace it.

Alternative Alt 3a: Construct a new bridge to the north of the existing bridge.

ROADWAY ITEMS	6,880,499
STRUCTURE ITEMS	6,933,000
CONSTRUCTION COSTS (Rdwy + Stctre)	13,813,499
RIGHT OF WAY	464,000
PROJECT CAPITAL COST (Const + R/W)	14,277,499

This cost estimate includes costs for maximum use of retaining walls.

Sheet 1 of 7

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

<u>Section 1 Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	15,500	CY	\$ 25.00	\$ 387,500	
Imported Borrow			\$ 0.00	\$ 0	
Clearing & Grubbing	1	LS	\$ 50,000.00	\$ 50,000	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			<u>Total Earthwork</u>	\$	437,500

		\$	0.00	\$	0	
		\$	0.00	\$	0	
Hot Mix Asphalt - A	5,625	TON	\$	105.00	\$	590,625
Class 2 Aggregate Base	7,836	CY	\$	70.00	\$	548,520
Cold Plane AC Pavement	1,600	SQYD	\$	32.00	\$	51,200
Remove Asphalt Concrete Pavement	5,675	SQFT	\$	5.00	\$	28,373
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
			\$	0.00	\$	0
				Total Structural Items	\$	1,218,718

Drainage Systems	<u>1</u>	<u>LS</u>	\$ 150,000.00	\$ 150,000	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			<u>Total Drainage</u>	\$ 150,000	

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

Section 5 Traffic Items

Sheet 3 of 7

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

Section 7 Roadside Management and Safety

Sheet 4 of 7

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

Section 8 Minor Item

			<u>Percent</u>	<u>Section Cost</u>
Subtotal Sections 1-7	\$ <u>4,633,333</u>	x (5 to 10%)	<u>10%</u>	
			<u>Total Minor Items</u>	\$ <u>463,333</u>

Section 9 Roadway Mobilization

Subtotal Sections 1-8	\$ <u>5,096,666</u>	x (10%)	<u>10%</u>	
			<u>Total Roadway Mobilization</u>	\$ <u>509,667</u>

Section 10 Roadway Additions

Supplemental Work

Subtotal Sections 1-8	\$ <u>5,096,666</u>	x (5 to 10%)	<u>10%</u>	
-----------------------	---------------------	--------------	------------	--

Contingencies

Subtotal Sections 1-8	\$ <u>5,096,666</u>	x (15%)**	<u>15%</u>	
-----------------------	---------------------	-----------	------------	--

Total Roadway Additions \$ 1,274,167

TOTAL ROADWAY ITEMS \$ **6,880,499**
(Total of Sections 1-10)

Estimate Prepared by Kevin Canfield Date 3/20/14

Estimate Checked by Sushil Joshee Date 3/20/14

** Use appropriate percentage per Chapter 20.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

II. STRUCTURE ITEMS

	STRUCTURE		
	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width m (out to out)	_____	_____	_____
Span Lengths m	_____	_____	_____
Total Area Sq. m	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost Per Sq. m (incl. 10% mobilization and 25% contingency)	_____	_____	_____
Total Cost for Structure	_____	_____	6,933,000
Other	_____	_____	_____

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$ 6,933,000

Railroad Related Costs	_____	\$ _____
	_____	\$ _____
	_____	\$ _____

SUBTOTAL RAILROAD ITEMS \$ _____

Structure Contingency (Subtotal Structures Items x15%) \$ _____
Structure Mobilization (Subtotal Structures Items x10%) _____

TOTAL STRUCTURES ITEMS \$ **6,933,000**

Total cost based on APS info.

Estimate Prepared by Jason Lynch Date 3/7/14

NOTE: If appropriate, attach additional pages and backup.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3a - New Bridge to the
North

III. RIGHT OF WAY

Escalated
Values

- A. Acquisition, including excess lands, damages to
remainder(s), and Goodwill
B. Utility Relocation (State share)
C. Relocation Assistance
D. Clearance/Demolition
E. Title and Escrow Fees

\$
\$
\$
\$
\$

TOTAL RIGHT OF WAY ITEMS \$ 464,000 Total from R/W Datasheet
(Escalated Value)

Anticipated Date of Right of Way Certification
(Date to which Values are Escalated)

- F. Construction Contract Work
Brief Description of Work:

Right of Way Branch Cost Estimate for Work* \$

* This dollar amount is to be included in the Roadway and / or
Structures Items of Work, as appropriate. Do not include in Right
of Way Items.

COMMENTS:

Estimate Prepared by Kelly Cummings Date 3/3/14

NOTE: If appropriate, attach additional pages and backup.

Sheet 7 of 7

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

Last Updated on 7/2/2014
by Justin Unck

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

Project Description:

Limits PM 23.99

Proposed Improvement (Scope) Seismically retrofit the existing bridge or replace.

Alternative Alt 3b: Construct a new bridge on the existing alignment.

ROADWAY ITEMS	2,554,145
STRUCTURE ITEMS	8,260,000
CONSTRUCTION COSTS (Rdwy + Stctre)	10,814,145
RIGHT OF WAY	416,000
PROJECT CAPITAL COST (Const + R/W)	11,230,145

This cost estimate includes costs for maximum use of retaining walls.

Sheet 1 of 7

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

<u>Section 1 Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	481	CY	\$ 72.00	\$ 34,632	
Imported Borrow	4,800	CY	\$ 10.00	\$ 48,000	
Clearing & Grubbing	1	LS	\$ 20,000.00	\$ 20,000	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
			\$ 0.00	\$ 0	
				<u>Total Earthwork</u>	\$ 102,632

			0.00	\$	0
			<u>0.00</u>	\$	<u>0</u>
Hot Mix Asphalt - A	654	TON	\$ 200.00	\$	130,800
Class 2 Aggregate Base	335	CY	\$ 85.00	\$	28,475
Cold Plane AC Pavement	1,600	SQYD	\$ 32.00	\$	51,200
Remove Asphalt Concrete Pavement			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
			<u>\$ 0.00</u>	\$	<u>0</u>
				Total Structural Items \$	210,475

Drainage System		\$ 0.00	\$ 0	
	1	LS	\$ 50,000.00	\$ 50,000
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			\$ 0.00	\$ 0
			Total Drainage \$ 50,000	

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

<u>Section 5 Traffic Items</u>			
		\$ 0.00	\$ 0
Thermoplastic Traffic Stripe	6,460 LF	\$ 1.10	\$ 7,106
Pavement Marker (Retroreflective)	180 EA	\$ 3.80	\$ 684
Thermoplastic Pavement Marking	195 SQFT	\$ 5.35	\$ 1,043
Constrution Area Signs	1 LS	\$ 12,000.00	\$ 12,000
Electrical System Cost	1 LS	\$ 1,000.00	\$ 1,000
Transportation Management Plan		\$ 0.00	\$ 0
Reset Roadside Sign		\$ 0.00	\$ 0
Flashing Beacon	1 LS	\$ 35,000.00	\$ 35,000
Traffic Control Costs	1 LS	\$ 250,000.00	\$ 250,000
		Total Traffic Items	\$ 306,833

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

Section 7 Roadside Management and Safety

Sheet 4 of 7

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

Section 8 Minor Item

			<u>Percent</u>	<u>Section Cost</u>
Subtotal Sections 1-7	\$ <u>1,719,963</u>	x (5 to 10%)	<u>10%</u>	
			<u>Total Minor Items</u>	\$ <u>171,996</u>

Section 9 Roadway Mobilization

Subtotal Sections 1-8	\$ <u>1,891,959</u>	x (10%)	<u>10%</u>	
			<u>Total Roadway Mobilization</u>	\$ <u>189,196</u>

Section 10 Roadway Additions

Supplemental Work

Subtotal Sections 1-8	\$ <u>1,891,959</u>	x (5 to 10%)	<u>10%</u>	
-----------------------	---------------------	--------------	------------	--

Contingencies

Subtotal Sections 1-8	\$ <u>1,891,959</u>	x (15%)**	<u>15%</u>	
-----------------------	---------------------	-----------	------------	--

Total Roadway Additions \$ 472,990

TOTAL ROADWAY ITEMS \$ **2,554,145**
(Total of Sections 1-10)

Estimate Prepared by Kevin Canfield Date 3/20/14

Estimate Checked by Sushil Joshee Date 3/20/14

** Use appropriate percentage per Chapter 20.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width m (out to out)			
Span Lengths m			
Total Area Sq. m			
Footing Type (pile/spread)			
Cost Per Sq. m (incl. 10% mobilization and 25% contingency)			
Total Cost for Structure			8,260,000
Other			

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$ 8,260,000

Railroad Related Costs

	\$
	\$
	\$

SUBTOTAL RAILROAD ITEMS \$

Structure Contingency (Subtotal Structures Items x15%) \$

Structure Mobilization (Subtotal Structures Items x10%) \$

TOTAL STRUCTURES ITEMS \$ 8,260,000

Total cost based on APS info.

Estimate Prepared by Jason Lynch Date 3/7/14

NOTE: If appropriate, attach additional pages and backup.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

03/ ED/ 49
PM 23.99
EA 0F3100
EFIS 03 0000 0078
Alt 3b - New Bridge on the
Existing Alignment, Variation TSS1

III. RIGHT OF WAY

Escalated
Values

- A. Acquisition, including excess lands, damages to
remainder(s), and Goodwill
B. Utility Relocation (State share)
C. Relocation Assistance
D. Clearance/Demolition
E. Title and Escrow Fees

\$
\$
\$
\$
\$

TOTAL RIGHT OF WAY ITEMS \$ 416,000 Total from R/W Datasheet
(Escalated Value)

Anticipated Date of Right of Way Certification
(Date to which Values are Escalated)

- F. Construction Contract Work
Brief Description of Work:

Right of Way Branch Cost Estimate for Work* \$

* This dollar amount is to be included in the Roadway and / or
Structures Items of Work, as appropriate. Do not include in Right
of Way Items.

COMMENTS:

Estimate Prepared by Kelly Cummings Date 3/3/14

NOTE: If appropriate, attach additional pages and backup.

Sheet 7 of 7

Attachment K

Right of Way Data Sheets

MEMORANDUM

*Flex your power!
Be energy efficient!*

To: NESAR FORMOLI
Design Engineer
Department of Transportation

Attention: JUSTIN UNCK
Project Engineer

Date: March 3, 2014

File: 03-ED-49 PM 23.99

EFIS No.: 03 0000 0078

EA: 0F3100

Alternate: 3a

From: JANEL D. WILSON
Assistant Chief,
North Region Right of Way
Marysville

Subject: CURRENT ESTIMATED RIGHT OF WAY COSTS

Project Description: Construct new bridge

Alternate Description: This alternative will construct a new bridge to the north of the existing bridge. Due to the 21' alignment shift, new roadway will be constructed on both ends of the bridge for a distance of approximately 1800' to tie in the new alignment. The new bridge will meet current design standards.

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on December 19, 2013 .

Right of Way Lead Time will require a minimum of 19 months after receipt of appraisal maps, utility conflict maps, environmental clearances (HMDD) and Certificate of Sufficiency (COS). A minimum of 18 months prior to certification will be required from submittal of the last map or revision.

Attachments:
Right of Way Data Sheet

cc. Jess Avila

State of California - Department of Transportation
RIGHT OF WAY DATASHEET



EA: 0F3100
PROJECT NO.: 03 0000 0078
LOCATION: 03-ED-49 PM 23.99
Description: Retrofit or replace the South Fork America River Bridge
Construct new bridge

ALTERNATE: 3a
DATE: 3/3/2014
Datasheet Type: Initial

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$42,314	5%	\$46,732
B. Appraisal Fees Estimate	\$10,000	N/A	\$10,000
C. Mitigation Acquisition & Credits	\$346,500	5%	\$382,681
D. Project Development Permit Fees	\$12,500	5%	\$13,805
Subtotal	\$411,314		\$453,218
E. Utility Relocation (State's Share)	\$5,000	5%	\$5,522
(Owner's Share: \$234,000)			
F. Relocation Assistance (RAP)	\$0		\$0
G. Clearance/Demolition	\$0		\$0
H. Title & Escrow	\$4,400	5%	\$4,859
I. Total Estimated Right of Way Cost	\$420,714	Rounded	\$464,000 *
J. Construction Contract Work	\$6,000		

2. Current Date of Right of Way Certification March 15, 2016

3. Parcel Data:

Type	Dual/Appr	Utilities	Railroad
X 0		U4 - 1 3	C&M Agreement 0
A 0		- 2 0	Service Contract 0
B 5		- 3 0	Easements 0
C 0	0	- 4 0	Rights of Entry 0
D 0	0	U5 - 7 1	Clauses 0
RR 0		- 8 0	
Total 5		- 9 3	
Excess 0			

Areas:	Mitigation	Misc. R/W Work
R/W 38215 SF	Impacts 1	RAP Displacees N/A
TCE 23933 SF	Parcels 0	Clear/Demo N/A
Excess N/A	Credits 0	Permit to Enters 3
Mitigation N/A		Condemnation 1
		USA Involvement No

4. **Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).**

This project proposes to replace the existing bridge with minimal land acquisition. 5 partial acquisitions and 2 temporary construction easement are anticipated from business and open land properties.

5. **Are any properties acquired for this project expected to be rented, leased, or sold?**

Yes _____ No X

6. **Are RAP displacements required?**

Yes _____ No X

No. of single family N/A

No. of business/nonprofit N/A

No. of multi-family N/A

No. of farms N/A

Based on Draft/Final Relocation Impact Statement/Study dated _____ N/A

 N/A Sufficient replacement housing will be available without last resort housing.

 N/A Sufficient replacement housing will not be available without last resort housing.

7. **Is there an effect on assessed valuation?**

Yes _____ No X Not Significant _____

8. **Are there any items of Construction Contract Work?**

Yes X No _____

9. **Are utility facilities or rights of way affected?**

Yes X No _____

Names of Utility Companies requiring verification only.

CVIN

Names of Utility Companies requiring involvements.

PG&E, AT&T, El Dorado Irrigation District (EID)

Additional information concerning Utility Involvement on this project.

EID confirmed they have a water line attached to structure. In field review, R/W personnel also identified EID water lids. EID water line will need to relocate to new bridge. At minimum, AT&T has three individual poles and three joint poles with PG&E that will be affected by placing the new bridge north of the current highway alignment. Potholing funds have been included to locate EID facilities in road approach on both sides of existing bridge.

10. **Are railroad facilities or rights of way affected?**

Yes _____ No X Phase 4 Capital \$0

11. **Are USA Lands or Rights Affected?**

Yes _____ No X Phase 4 Capital \$0

Agencies Involved:

US Forest Service _____

BLM _____

Army Corps of Engineers _____

National Parks _____

BIA _____

Veterans Administration _____

US Fish & Wildlife _____

GSA _____

Rights or Permissions to acquire:

Easement _____

Special Use Permit _____ Courtesy Letter _____

Right of Way Grant _____

Cooperative Work Agreement _____ Cost Recovery _____

Mineral Agreement _____

Letter of Concurrence _____ Timber Sale _____

There are no Federal Lands on this project.

12. **Is an RE Office required for the project?**

Yes X No _____

13. **Were any previously unidentified sites with hazardous waste and/or material found?**

Yes _____ None Evident X

14. Are there material borrow and/or disposal sites required?

No X Optional _____ Mandatory _____

15. Are there potential relinquishments and/or abandonments?

Yes _____ No X

16. Are there any existing and/or potential airspace sites?

Yes _____ No X

17. What type of mitigation is required for the project?

Permits and Mitigation are expected on this project. Whether Permits to Enter (PTE's) will be necessary for testing is unknown and a number was estimated for planning purposes. Variation of Environmental Costs, depending on alternative, was not available.

18. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No _____

19. Indicate the anticipated Right of Way schedule and lead time requirements.

Right of Way Lead Time will require a minimum of 19 months after we receive first appraisal maps, utility conflict maps, necessary environmental clearances and freeway agreements have been approved and obtained. Additionally a minimum of 18 months will be required after receiving the last appraisal map to Right of Way for certification.

20. Assumptions and limiting Conditions: (Check boxes that apply.)

- ☒ Mapping did not provide sufficient detail to determine the limits of the right of way required.
- ☒ Transportation facilities have not been sufficiently designed to determine the damages to any of the remainder parcels affected by the project.
- ☒ Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- ☒ Design will secure necessary encroachment permits from local agencies.
- ☐ Project permits are not required for the project.
- ☒ The right of way commitments of project are at risk with the current schedule.

Evaluation Prepared By:

Right of Way

Kelly J. Cummings
KELLY J. CUMMINGS

Date

3-7-14

Reviewed By

RW Planning & Management:

Kristen Pulliam
KRISTEN PULLIAM

Date

3-7-14

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.

Grant J. Semple
GRANT J. SEMPLE

Senior Right of Way Agent
Appraisals & Estimates Branch
Marysville

Date

3-7-14

Janel D. Wilson
JANEL D. WILSON

Assistant Chief
North Region Right of Way
Marysville

Date

3-7-14

MEMORANDUM

*Flex your power!
Be energy efficient!*

To: NESAR FORMOLI
Design Engineer
Department of Transportation

Date: March 3, 2014

File: 03-ED-49 PM 23.99

EFIS No.: 03 0000 0078

EA: 0F3100

Alternate: 3b

Attention: JUSTIN UNCK
Project Engineer

From: JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Subject: CURRENT ESTIMATED RIGHT OF WAY COSTS

Project Description: Construct new bridge

Alternate Description: This alternative will construct a new bridge on the existing alignment. Only minimal work is required to tie in the new bridge to the existing roadway. The new bridge will meet current design standards.

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on December 19, 2013 .

Right of Way Lead Time will require a minimum of 19 months after receipt of appraisal maps, utility conflict maps, environmental clearances (HMDD) and Certificate of Sufficiency (COS). A minimum of 18 months prior to certification will be required from submittal of the last map or revision.

Attachments:
Right of Way Data Sheet

cc. Jess Avila

State of California - Department of Transportation
RIGHT OF WAY DATASHEET



EA: 0F3100
PROJECT NO.: 03 0000 0078
LOCATION: 03-ED-49 PM 23.99
Description: Retrofit or replace the South Fork America River Bridge
Construct new bridge

ALTERNATE: 3b
DATE: 3/3/2014
Datasheet Type: Initial

This is not the preferred or likely alternative. Do not use for programming.

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$6,250	5%	\$6,903
B. Appraisal Fees Estimate	\$5,000	N/A	\$5,000
C. Mitigation Acquisition & Credits	\$346,500	5%	\$382,681
D. Project Development Permit Fees	\$12,500	5%	\$13,805
Subtotal	\$370,250		\$408,388
E. Utility Relocation (State's Share)	\$5,000	5%	\$5,522
(Owner's Share: \$144,000)			
F. Relocation Assistance (RAP)	\$0		\$0
G. Clearance/Demolition	\$0		\$0
H. Title & Escrow	\$1,600	5%	\$1,767
I. Total Estimated Right of Way Cost	\$376,850	Rounded	\$416,000 *
J. Construction Contract Work	\$12,000		

2. Current Date of Right of Way Certification March 15, 2016

3. Parcel Data:

Type	Dual/Appr	Utilities	Railroad
X 0		U4 - 1 1	C&M Agreement 0
A 0		- 2 0	Service Contract 0
B 2		- 3 0	Easements 0
C 0	0	- 4 0	Rights of Entry 0
D 0	0	U5 - 7 3	Clauses 0
RR 0		- 8 0	
Total 2		- 9 1	
Excess 0			

Areas:	Mitigation	Misc. R/W Work
R/W 1395 SF	Impacts 1	RAP Displaces N/A
TCE 880 SF	Parcels 0	Clear/Demo N/A
Excess N/A	Credits 0	Permit to Enters 6
Mitigation N/A		Condemnation 0
		USA Involvement No

4. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).

This project proposes to replace the existing bridge with 2 partial acquisitions. These are from business properties and may require construction contract work for retaining walls or fencing which is not included in this estimate.

5. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes _____ No **X** _____

6. Are RAP displacements required?

Yes _____ No **X** _____

No. of single family _____ N/A

No. of multi-family _____ N/A

No. of business/nonprofit _____ N/A

No. of farms _____ N/A

Based on Draft/Final Relocation Impact Statement/Study dated _____ N/A

N/A Sufficient replacement housing will be available without last resort housing.

N/A Sufficient replacement housing will not be available without last resort housing.

7. Is there an effect on assessed valuation?

Yes _____ No **X** _____ Not Significant _____

8. Are there any items of Construction Contract Work?

Yes **X** _____ No _____

Driveway conforms are anticipated for this project.

9. Are utility facilities or rights of way affected?

Yes **X** _____ No _____

Names of Utility Companies requiring verification only.

CVIN, PG&E, AT&T

Names of Utility Companies requiring involvements.

El Dorado Irrigation District (EID)

Additional information concerning Utility Involvement on this project.

EID confirmed they have a water line attached to structure. In field review, R/W personnel also identified EID water lids. EID water line will need to relocate to new bridge. AT&T and PG&E have poles in the project area but likely not to be affected by bridge replacement, depending on construction equipment used in area. Potholing funds have been included to locate EID facilities in road approach on both sides of bridge.

10. Are railroad facilities or rights of way affected?

Yes _____ No **X** _____ Phase 4 Capital **\$0** _____

11. Are USA Lands or Rights Affected?

Yes _____ No **X** _____ Phase 4 Capital **\$0** _____

Agencies Involved:

US Forest Service _____

National Parks _____

US Fish & Wildlife _____

BLM _____

BIA _____

GSA _____

Army Corps of Engineers _____

Veterans Administration _____

Rights or Permissions to acquire:

Easement _____

Right of Way Grant _____

Mineral Agreement _____

Special Use Permit _____ Courtesy Letter _____

Cooperative Work Agreement _____ Cost Recovery _____

Letter of Concurrence _____ Timber Sale _____

There is no Federal Lands on this project.

12. Is an RE Office required for the project?

Yes **X** _____ No _____

13. Were any previously unidentified sites with hazardous waste and/or material found?

Yes _____ None Evident **X** _____

14. Are there material borrow and/or disposal sites required?

No X Optional _____ Mandatory _____

15. Are there potential relinquishments and/or abandonments?

Yes _____ No X

16. Are there any existing and/or potential airspace sites?

Yes _____ No X

17. What type of mitigation is required for the project?

Permits and Mitigation are expected on this project. Whether Permits to Enter (PTE's) will be necessary for testing is unknown and a number was estimated for planning purposes. Variation of Environmental Costs, depending on alternative, was not available.

18. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No _____

19. Indicate the anticipated Right of Way schedule and lead time requirements.

Right of Way Lead Time will require a minimum of 19 months after we receive first appraisal maps, utility conflict maps, necessary environmental clearances and freeway agreements have been approved and obtained. Additionally a minimum of 18 months will be required after receiving the last appraisal map to Right of Way for certification.

20. Assumptions and limiting Conditions: (Check boxes that apply.)

- ☒ Mapping did not provide sufficient detail to determine the limits of the right of way required.
- ☒ Transportation facilities have not been sufficiently designed to determine the damages to any of the remainder parcels affected by the project.
- ☒ Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- ☒ Design will secure necessary encroachment permits from local agencies.
- ☐ Project permits are not required for the project.

Evaluation Prepared By:

Right of Way

Kelly J. Cummings
KELLY J. CUMMINGS

Date

3-7-14

Reviewed By

RW Planning & Management:

Kristen Pulliam
KRISTEN PULLIAM

Date

3-7-14

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.

Grant J. Semple
GRANT J. SEMPLE

Senior Right of Way Agent
Appraisals & Estimates Branch
Marysville

Date

3-7-14

Janel D. Wilson
JANEL D. WILSON

Assistant Chief
North Region Right of Way
Marysville

Date

3-7-14

Attachment L

Hazardous Waste Site Assessment

Memorandum

Date: April 15, 2013

File: 03-ED-49
PM 23.5 to 24.7
EA 0F3100
03 000 0078-0

To: **RITTER MAGGIE**
Associate Environmental Planner

From: **MARIA ALICIA BEYER SALINAS**
Office of Environmental Engineering South
Hazardous Waste

Subject: Hazardous Waste Third Revised Site Assessment

The American River Br. No. 25-0021 will be rehabilitated or replaced to meet seismic standards. In order to meet current design standards and community needs. Depending on the selected alternative, the project work scope may involve: road centerline realignment, road widening, road cut/fill, right of way acquisition and/or temporary easements (ref. ESL limits layouts 4/12/13 - Rev # 3).

Barrier Railing Replacement.

Contractor will access the area alongside and below the bridge west of the river from an existing gravel road located at the southwest quadrant of the bridge to the right of Abutment 1. Some minor grading and brush trimming will be needed to improve access to the bridge.

Manlifts will be used to install this formwork from below the bridge except in areas over the active river that can not be reached from the bank. Areas over the river will be installed from the bridge deck using an under bridge access truck.

Areas at the east end of the bridge in span 7 could be accessed by an existing path at the northeast quadrant to the left of Abutment 8. The path could be improved with minor grading to accommodate small equipment such as a manlift.

Deck Rehabilitation

Existing AC surfacing on the bridge deck will be removed by grinding.

Deck surface will be cleaned using shot blasting equipment.

Deck will be treated with methacrylate resin and a 0.75 inch thick polyester concrete overlay will be placed using paving equipment.

Seismic Retrofit

The existing cross bracing located between the steel girders near the abutments and piers will be strengthening by adding additional steel bracing members. These will be either bolted or welded into place. Steel plates will be added to the top flange of the girders at the hinge locations to restrain lateral movement. These will be welded into place.

Paint will be removed in areas to be welded by blast cleaning. All debris will be contained. After welding, bare metal areas will be painted.

Access for this work will be from below the bridge except for the hinges in span 5 over the water which will be accessed from the bridge deck.

Temporary construction easements and equipment staging area may be required. No disposal of excavated material outside the project limits is involved.

* The bridge replacement alternative in the Supplemental PSSR was looking at closing the existing bridge in conjunction with a detour, allowing a replacement on the same alignment. The project now proposes to retain that alternative, and then add a replacement alternative that considers half width stage construction. The alignment would be shifted under this new alternative (could be either direction, depending on further studies)

ISA Conclusions:

1. Records review.

The hazardous waste investigation was limited to a records review, State's Steel Bridges database review, and a Site Investigation for Naturally Occurring Asbestos (NOA), Aerially Deposited Lead (ADL) and Lead/Chromium based paint site investigation, performed by Geocon, Inc. (during 2004 for project EA 03-ED-49, PM 24.1/24.6, EA 2C3600 under Task Order No. 04, Contract 03A0937) .

Based on the nature of the project work scope, no significant hazardous waste is expected to be encountered within the project limits. Appropriate Standard Special Provisions should be included in the project's construction contract.

2. Aerially Deposited Lead (ADL)

Between PM 24.1 and PM 24.6, Total lead was detected at concentrations at or above the laboratory method detection limit in 52 of the 115 soil samples tested. Total lead concentrations ranged from non-detect to 140 mg/kg. Soil pH values ranged from 6.76 to 8.71.

Use Standard Special Provision (SSP) 7-1.02K(6)(j)(iii)_ earth material containing lead

3. Traffic Stripe -Lead/Chromium Based Paint

The Contractor is required to properly manage removed stripe and pavement marking and shall implement a project specific lead compliance plan prepared by a Certified Industrial Hygienist (CIH) as required by Cal/OSHA.

Use SSP 14-11.07_remove yellow traffic stripes and pavement markings with hazardous waste residue.

Use SSP 15-1.03B_residue containing lead from paint and thermoplastic. Use in surface to be ground or cold planed.

4. Structure - Lead/Chromium Based Paint.

State's steel bridges database provided by John C Rogers from HQ shows that the South Fork American River, Bridge No. 25-0021 has "Zinc Chromate Lead based

paint.” Sampling and testing the lead-based paint will be performed under a Task Order. Contractor must prepare and implement a Lead Compliance Plan (LCP) for disturbance of existing paint systems on bridge and debris containment Special Provisions.

Use SSP 14-11.08_disturbance of existing paint systems on bridges
Use SSP 7-1.02K(6)(j)(ii)_lead compliance plan

5. Naturally Occurring Asbestos (NOA)

The mapped and observed geology of the Site is not indicative of a metamorphic regime where NOA minerals are likely to occur. Outcrops with documented occurrences of NOA are mapped approximately 1.2 km (0.76 mi) to the northeast and 2.0 km (1.3 mi) to the south-southwest of the Site. NOA was not reported at or above 0.25 percent in the eleven samples analyzed. However, one sample collected was reported to contain NOA trace, less than 0.25 percent chrysotile. (Ref. Geocon report, Sec. 6.1 p.14)

Though material containing NOA at or above 0.25 percent is unlikely on the Site, the following conclusions and recommendations are applicable if subsequent work reveals the presence of such NOA containing materials. NOA is a State of California regulated substance.

In the unlikely event that NOA is discovered at levels exceeding the CARB (California Air Resources Board) regulatory limit of 0.25 percent NOA content, the excavated materials cannot be used as, or in such a way that it could fall under the definition of surfacing material as defined by the CARB Rules.

Under Title 8 Section 5208 of the California Code of Regulations (CCR), disturbance of asbestos containing materials requires wet working methods and possible respiratory protection and air monitoring. El Dorado County has also implemented guidelines and regulations for handling and disposal of NOA containing materials. Contractors handling asbestos containing material should consult Title 17, Section 93105, and contact the El Dorado County Environmental Management Department and the California Occupational Safety and Health Administration to establish the appropriate regulatory protocol and actions necessary for excavation and/or disturbance of asbestos containing soils. Contractor must prepare and implement an asbestos compliance plan.

Use SSP 14-11.05_naturally occurring asbestos.

6. NESHAP Notification.

A special provision shall be added to the contract to address NESHAP notification. “The Contractor shall prepare bridge seismic retrofit modification notification form and attachments to be submitted to the California Air Resource Board, Compliance Division, (2020 'L' Street, Sacramento, CA 95814,) as required by NESHAP, 40CFR Part 61, and California Air Resources Control Board rules.”

Use N-SSP 14-9.02_A04-20-12

7. Treated Wood Waste

Treated wood waste (TWW) can occur as post along metal beam guard railing (MBGR), thrie beam barrier, piles, or roadside signs. These wood products are typically treated

with preserving chemicals that may be hazardous (carcinogenic) and include but are not limited to arsenic, chromium, copper, creosote, and pentachlorophenol. The Department of Toxics Substances Control (DTSC) requires that TWW either be disposed as a hazardous waste, or if not tested, the generator may presume that TWW is a hazardous waste and must be disposed in an approved treated wood waste facility.

Use SSP 14-11.09_treated wood waste

8. Estimate cost and bid items that need to be included in the BEES:

- \$3500 for Lead Compliance Plan for ADL, traffic stripe and Structure Paint
- \$3500 for Asbestos Compliance Plan
- \$4000 for Landfill dispose of TWW

If you have any questions, do not hesitate to give me a call at (530) 741-4580.

cc: Justin Unck– Project Engineer
Clark Peri - Project Manager

Attachment M

Environmental Document

MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the South Fork American River Bridge (Br No. 25-0021) in El Dorado County on State Route (SR) 49 at post mile (PM) 23.66/24.42 near Coloma and Lotus.

Determination

Caltrans has prepared an Initial Study for this project, and following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have no effect on the following: farmland and timberland resources, air quality, noise, geology and soils, growth, coastal zone, environmental justice, wild and scenic rivers, hazards or hazardous materials, mineral resources, paleontology, population and housing, utilities and service systems.
- In addition, the proposed project would have less than significant effects to aesthetics, cultural resources, public services, land use and planning, recreation, hydraulics and water quality, and transportation/traffic.

With certain mitigation measures incorporated as described in the final environmental document, the proposed project would have less than significant effects to biological resources, including riparian vegetation habitat.

For all alternatives, compensatory mitigation will likely be required for permanent impacts to riparian vegetation habitat.



John D. Webb
Chief, Office of Environmental Services
District 03
California Department of Transportation

March 6, 2015
Date

Attachment N

Access Improvements Study Map

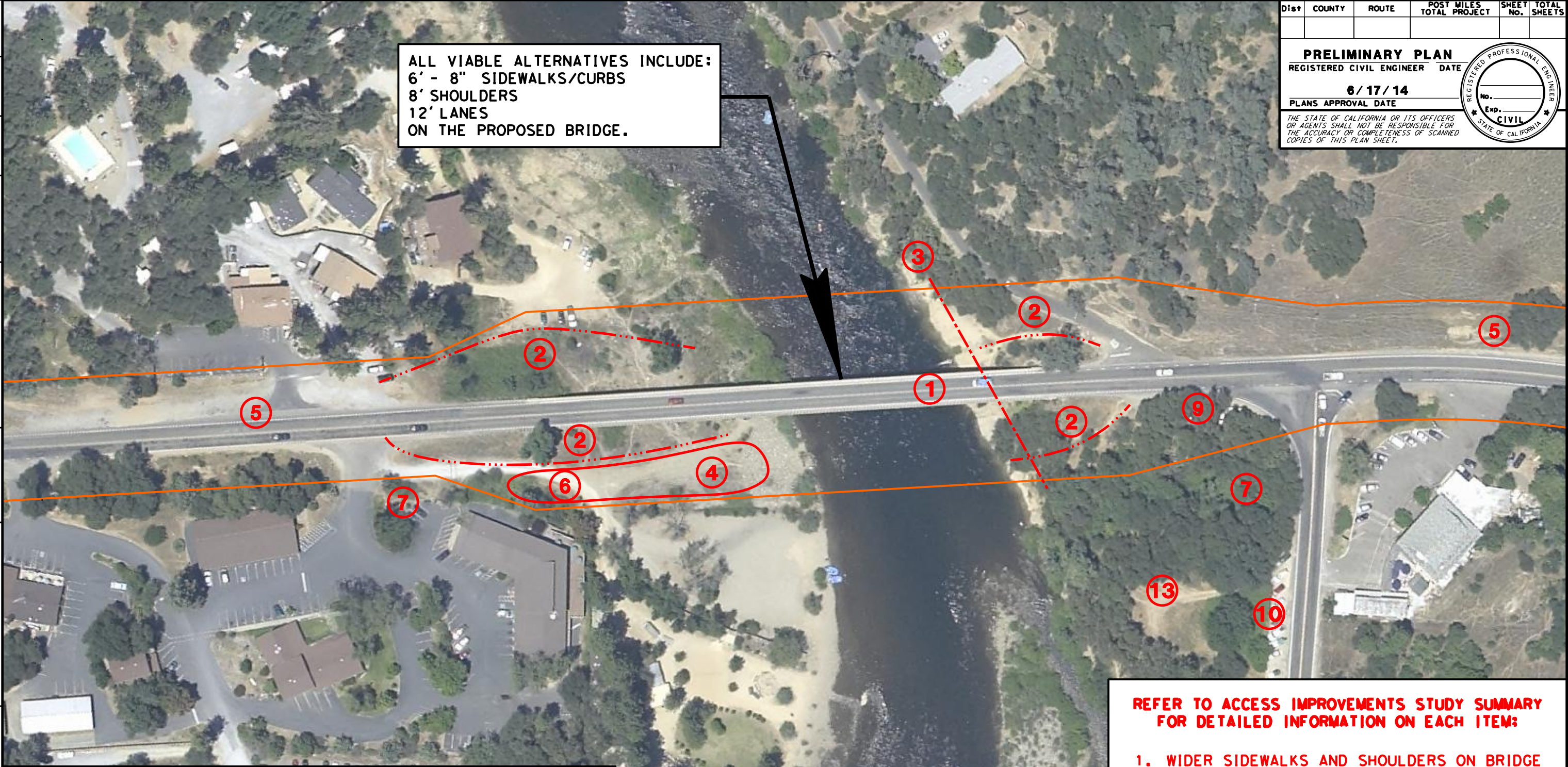
ALL VIABLE ALTERNATIVES INCLUDE:
6' - 8" SIDEWALKS/CURBS
8' SHOULDERS
12' LANES
ON THE PROPOSED BRIDGE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN
REGISTERED CIVIL ENGINEER DATE
6 / 17 / 14
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA



**REFER TO ACCESS IMPROVEMENTS STUDY SUMMARY
FOR DETAILED INFORMATION ON EACH ITEM:**

- 1. WIDER SIDEWALKS AND SHOULDERS ON BRIDGE
- 2. ACCESS TO THE RIVER
- 3. IMPROVE LOCAL TRAIL SYSTEM
- 4. UNPAVED PARKING AREA (IN THE RIVERBED)
- 5. PAVED PARKING AREA (NEAR HIGHWAY)
- 6. SEASONAL PARKING (CLEAR OF HIGH FLOWS)
- 7. PUBLIC RESTROOMS
- 8. TRASH CANS (LOCATIONS NOT SHOWN)
- 9. INFORMAL PARKING
- 10. INFORMAL PARKING
- 11. N/A
- 12. REST STOP (NOT SHOWN)
- 13. PARK AND RIDE LOT
- 14. DEMARCATATE R/W LINES (NOT SHOWN)

**ACCESS IMPROVEMENTS
STUDY MAP**

SOUTH FORK AMERICAN RIVER BRIDGE PROJECT

— EXISTING RIGHT OF WAY (APPROXIMATE)



NOTE: THIS PHOTOGRAPH DOES NOT SHOW HIGHWAY IMPROVEMENTS COMPLETED IN 2006.

NO SCALE

* REVIS BY	* DATE REVISED	* CALCULATED- DESIGNED BY	* CHECKED BY	* FUNCTIONAL SUPERVISOR	* DEPARTMENT OF TRANSPORTATION	* STATE OF CALIFORNIA -	* Caltrans

Attachment O

Access Improvements Study Summary

ACCESS IMPROVEMENTS STUDY SUMMARY

Updated 7/8/14

Information contained here provided by the Environmental branch, and was originally obtained from the public (individuals and organized groups) and external agencies, and then considered by the PDT group. Abbreviations defined at the bottom of the table.

No.	Item	Description	Request/Comment Source	Status	Apparent Relavance to Access Issue	Notes
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Put sidewalks (ped/bike access) across the bridge.	30 + comments locals/public	Included	Moderate	New bridge includes standard width sidewalks and shoulders.
2	ACCESS TO RIVER	Access down to the river: either ADA compliant or not; but a trail down to the river, keeping the existing public use.	(information not provided)	Included (Partial)	Significant	Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The public currently accesses the river informally at all "corners" of the bridge. Informal access, equal to existing access, will be restored after project completion (ie, there are no restrictions on the public crossing over State R/W in this area to reach the river). Approximate existing pathways shown on provided mapping. It's not clear at this time where the most appropriate location would be to place a formal pathway(s), since there are no improved facilities in the riverbed. Designated pathways (signed)would have to meet ADA requirements, which apply in the floodplain.
3	IMPROVE LOCAL TRAIL SYSTEM	Connect the walking trail from Hennington-Lotus Park to Marshall Gold Discovery Sate Park.	4 comments in HLP concept plan, Caltrans public workshop, and focus meeting with locals	Not included	Moderate	Routing of the proposed County trail system is not established at this time. A guess on pathway routing through State right of way is shown on attached mapping. Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The comments weren't clear on whether we should do additional work outside our right of way to construct the pathway, or work would be limited to spanning across our right of way (line to line) to connect to a planned County pathway. A designated path will have to meet ADA requirements, which apply in the floodplain.
4	UNPAVED PARKING AREA (IN THE RIVERBED)	Provide a <i>gravel</i> parking lot in the gravel area at the southwest side of the bridge (riverbed). Place boulders to block cars from going down to shore.	public/locals	Not included	Moderate	Maintenance needs for upkeep of a formal parking that is routinely submerged is unknown. In times past, this area was open to vehicle access, but was eventually closed off. It is our understanding that problems with garbage and maintenance of the area prompted closure. There are reports of vehicles accidentally going into the river as well. A designated, off-street parking area will have to meet ADA requirements.
5	PAVED PARKING AREA (NEAR HIGHWAY)	Provide a <i>hardscaped</i> ADA-compliant parking (parking infastructure) area for public access down to river.	public/locals	Inlcuded	Moderate	Area could be available to create paved parking adjacent to Route 49 westerly of the new bridge. Even though 8' shoulders are planned for this project, sight distance and bike lane issues will prevent the use of shoulders for parking. Other issues include: increased maintenance by Caltrans forces and meeting ADA requirements (handicapped spaces, design standards, etc.) for off-street parking.
6	SEASONAL PARKING AREA (CLEAR OF HIGH FLOWS)	Provide a <i>seasonal</i> parking area on SW side of bridge in summer season to stay out of high flows during the winter.	public/locals	Not included	Moderate	This item ties in with Item 4 above. A County employee noted that kayakers like to use the river in the winter, so he suggested having parking that would not be subject to closure except during abnormally large river flows. Same issues as Item 4 above. Definition of "high flows" would be needed for further studies.
7	PUBLIC RESTROOMS	Provide bathrooms.	public/locals: this went with the idea of "parking infastructure"	Not included	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing access to rivers. A possible location is shown the mapping, though R/W would need to be obtained to place at this location.
8	TRASH CANS	Provide trashcans.	public/locals: local business owner and community member volunteered to maintain the trashcans	Not included	Minimal	Placing trash cans (presumably affixed to a post) is feasible. An agreement could be made with a local "entity" to maintain them, with a penalty of permanent removal if maintenance becomes an issue (ie, Caltrans Maintenance is having to clean/empty them due to a lack of upkeep by responsible entity). This item is outside the scope of the project, as well as our interpretation of State laws regarding providing access to rivers.
9	INFORMAL PARKING	Keep informal parking area on southeast side of bridge; most local folks will park there when accessing river from the bridge.	public/locals	Not included	Moderate	Inclusion of sidewalk on the southeast corner of the bridge, combined with roadway widening as part of this project, eliminates reasonable parking value of this area. Some usage may be retained under the seismic retrofit and widening alternative.
10	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House) as it is a popular area to park.	public/locals	Included	Moderate	There are no project plans at this time that affect the noted area; it is out of the planned limits of construction. The contractor might find it a desirable location to stage work, but it could be specified in the contract that it cannot be used by the contractor for any reason.
11	REQUEST FOR DETAILED STUDIES AND MULTIPLE PROJECT PROPOSALS	Request a stand alone feasibility study for river access "with access alternatives".	American White Water Association: blog and letter to Caltrans	Not included	Varies, depending on Item	Feasibility of providing access is being considered as part of the project development process. However, a separate report is not being prepared, per current Caltrans project development guidance. Conclusions of studies will be contained in the project approval document (Project Report).
12	REST STOP	A rest stop.	(detailed information not provided)	Not included	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing access to rivers.
13	PARK AND RIDE	Construct a park and ride facility near the bridge replacement project.	River Access PDT Group	Not included	Moderate	The project manager made contact with the El Dorado County Transportation Commision regarding this issue. Any park and ride facility would be planned and constructed by another agency (not Caltrans). Along Lotus Road, south of Rte 49, and adjacent to the river, there could potentially be a good park and ride location which would also serve as parking for persons accessing the river.
14	DEMARCATATE R/W LINES	Provide signage indicating location of State right of way.	River Access PDT Group	Included	Significant	The public may not be aware of property line locations, and as a result, may be hesitant to access the river for fear of trespassing. Posting signage would alleviate this issue.

ADA = Americans with Disabilities Act

HLP = Henningsen Lotus Park

PDT = Project Development Team

Attachment P

Access Improvements Study Proposals

ACCESS IMPROVEMENTS TO BE INCLUDED IN PROJECT

3/6/2015

No. (from Studies Summary)	Item	Proposal	Additional Information
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Construct standard sidewalks and shoulders on the bridge and road.	Standard sidewalks will be included on the bridge and bridge approaches, and along any reconstructed/widened roadway west of the bridge. The specific locations are dependant on the alternative being considered; refer to the Project Report for details.
2 (A)	ACCESS TO RIVER	Maintain existing level of "freedom" to access the river from all corners of the bridge.	Route 49 in the vicinity of the project is a conventional highway and there is no access control that would prohibit pedestrian entry to State right of way. At the project conclusion, there will be the same level of access at all corners of the bridge as there was prior to the project.
5 (A)	PAVED PARKING AREA (NEAR HIGHWAY)	Provide parallel parking spaces on the south side of Route 49 west of the bridge.	A total of 10 parallel parking spaces will be provided along Route 49. Parking was placed as close to the river as possible while still meeting design standards such as shoulder width, sight distance, etc. The shoulder will be widened to 14' (6' for bicycle lane, 8' for parking).
5 (B)	PAVED PARKING AREA (NEAR HIGHWAY)	Construct a maintenance vehicle pullout on the north side of Route 49 just east of Lotus Road.*	Construct a maintenance vehicle pullout for use by maintenance vehicles, and in doing so, also provide a parking opportunity for people accessing the river.
10	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House).	The project will not permanently affect the informal parking area, and the project specifications can include a clause that prevents the contractor from staging/occupying the area during construction.
14	DEMARCATATE RIGHT OF WAY LINES	Provide signs along the State right of way line near the river.	Signs will be placed along the right of way line to identify limits of public property.

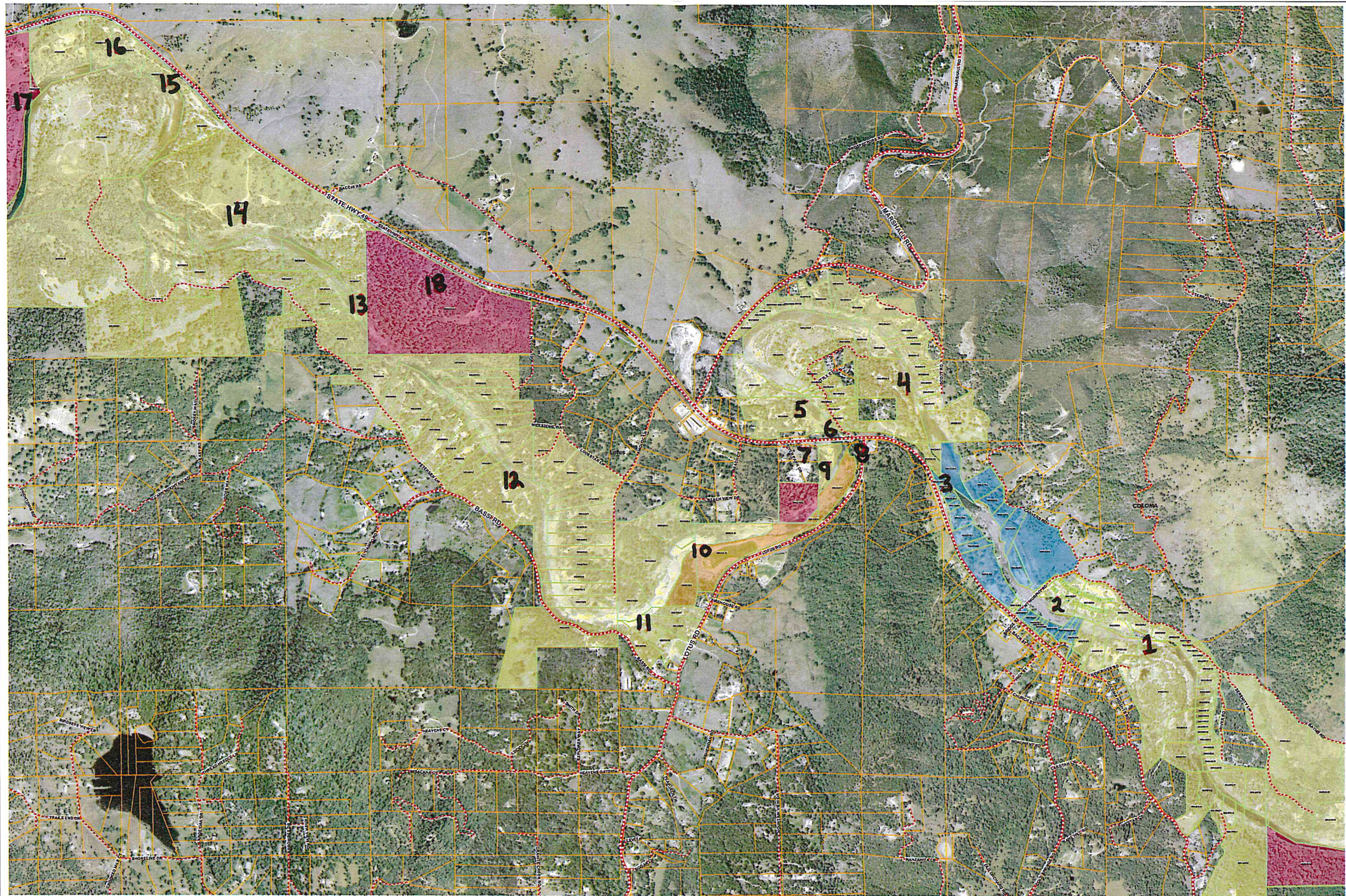
* This improvement is included for maintenance purposes and provides a side benefit for river access.

Attachment Q

Existing River Access in the Project Vicinity

Existing River Access in the Project Vicinity

- 1) American River Resort – Private campground open to camping guests only, no day use allowed.
- 2) Coloma Resort – Private campground open to guests only, no day use allowed.
- 3) Marshall Gold Discovery State Historical Park – Day use parking \$10, including public river access for water craft launching or landing. Bathrooms and trash cans are available to park users.
- 4, 9, 11, 13, 14, 15, 16) Commercial Outfitter Camps – not open to general public.
- 5) Ponderosa Resort – Private campground open to guests only, no day use allowed.
- 6) Highway 49 Bridge – A small, unpaved area along the southeast side shoulder accommodates 6-8 parked vehicles, and there are informal paths to the river. No bathrooms or trash cans at site.
- 7) Lotus Post Office shopping center – Parking lot near Highway 49 Bridge. No public restrooms or trash cans at site other than in businesses.
- 8) Sierra Nevada House – People use their parking spaces along Lotus Road to access the river at Highway 49. No public bathrooms or trash cans are available to general public.
- 10) Henningsen Lotus County Park – Day use parking \$5, raft launching or landing \$5, kayak launching or landing \$1. A boat ramp, bathrooms, and trash cans are available to the general public. Additional (fee based) parking is available in nearby turnouts along Lotus Road, and there are trails to the river and to a trail that parallels river.
- 12) Camp Lotus – Private campground open to guests only, no day use allowed.
- 17) Greenwood Creek Bureau of Land Management River Access – Free, small parking lot with a vault toilet and short, mild profile, wide dirt trail to river. No trailers allowed.
- 18) Dave Moore Bureau of Land Management Nature Area – Day use open space with parking lot near Highway 49. Half mile ADA compliant trail to the river, and half mile non-ADA compliant trail back (one mile loop). Vault toilet and trash cans at parking lot.



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NOTES:
LATER INFORMATION MAY COVER ADDITIONAL AREAS OUTSIDE OF THE DISPLAYED AREA.
PREPARED AT THE REQUEST OF: General Services, DATE: 06/28/2007
MAP PREPARED BY: Frank Smith, DATE: 07/05/2007
C.L.S. PROJECT#: 4227A, RELATED REPORT: n/a
EL DORADO COUNTY SURVEYOR/C.L.S. DIVISION
PHONE (530) 621-4511 FAX (530) 621-4731



SELECTED PARCELS WITHIN QUIET ZONE **Coloma Area** **County of El Dorado** **State of California**



Legend

Private	Selected Parcels with APN
County	Parcel Base
BLM	Roads
State	
Forest Service	

0 500 1,000 Feet

Map displayed in State Plane Coordinate System (NAD 1983 California Zone 2, feet)

Attachment R

Transportation Management Plan Data Sheet

Memorandum

*Flex your power!
Be energy efficient!*

To: JUSTIN UNCK
Project Engineer
NR Office of Design, Branch S7

Date: June 4, 2014

File: 03-0F3100
ED-49-PM 24.0
Seismic Retrofit or
Replacement of Bridge.

From: MAHER DABBAGH
DEPARTMENT OF TRANSPORTATION
District 3 – Office of Transportation Management Planning
and Signing & Striping.

Subject: Transportation Management Plan (TMP) Data Sheet

Background

- This project is located in El Dorado County on SR 49 PM 24.0 at South Fork American River Bridge (No. 25-0021). This Bridge has minimal shoulder width and it is subject to pedestrians and bicyclers creational traffic.
- The project proposes to improve the safety standard of this state highway bridge and to accommodate pedestrians and bicycles movement by one of the following three alternatives:
 - 1- Seismic Retrofit with Widening to the existing Bridge.
 - 2- Replacing the existing Bridge with new Bridge shifting CL to North. (Variation CCN1)
 - 3- Replacing the existing Bridge with new Bridge shifting CL to South. (Variation TSS1).
- Within the project limits SR 49 consists of 2-lane, 2-way conventional highway with daily peak hour volume of 640 vph both direction combine.

Recommendation

- One-way (reversible) traffic control in accordance with Standard Plan sheet T13 may be allowed at all times.
- The maximum length of any lane closure shall be limited to 0.8 mile.
- A minimum of one paved traffic lane not less than 11 feet wide, shall be open for use by public traffic at all times, and two lanes shall remain open when construction operations are not actively in progress.

- A minimum of 4 foot shoulder shall remain open at all times for pedestrian and bicycle use.
- The use of K-rail is recommended to separate the work zone from the public traffic.
- Work behind K-rail may be performed at any time.
- Consider using a temporary traffic signal to control traffic when the bridge is reduced to one lane open.
- Advance flaggers are recommended in areas where there is inadequate approaching sight distance.
- When bridge rail is removed, K-rail shall be secured in place prior to allowing traffic on the bridge.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.
- Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.
- Portable changeable message signs will be required in direction of traffic during construction for each lane, shoulder and bridge closure.
- Work at this location may require the assistance of COZEEP, but probably not a full time presence.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.
- Lane closure charts will have to be developed prior to P&E.

Cost

- For estimating purposes, use \$2,700 per working day to estimate the costs that are required for the Traffic Management Plan (TMP) items. These items include Traffic Control System, Portable Changeable Message Signs, Maintain Traffic, and TMP-Public Information.
- COZEEP is estimated at \$1,000 per working day and \$2,000 per working night whenever CHP involvement is needed during construction. COZEEP estimate should include 2 officers per vehicle when performing night work.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.

P & E Requirement

To complete a TMP for this project, please provide the following to the Office of Traffic Management Planning at least three months prior to P&E: project description, title sheet, typical cross sections, layout sheets, construction cost estimates, number of working days, project schedule, and a contact person.

Attachments

- TMP Checklist
- Needed Resources

D-3 TRANSPORTATION MANAGEMENT PLAN CHECKLIST

District / EA: 03-0F3100
Date Prepared: June 4, 2014
Prepared By: Maher Dabbagh

Co.Rte.-PM ED-49 PM 24.0
Location: South Fork American River Bridge (Br. No. 25-0021)

Description: Seismic Retrofit or Replacement of the Bridge.

1.0 Public Information Strategies

- 1.1 Brochures and Mailers
- 1.2 Media Releases (& minority media sources)
- 1.3 Paid Advertising
- 1.4 Public Information Center
- 1.5 Public Meetings/Speakers Bureau
- 1.6 Project Telephone Hotline
- 1.7 Internet, E-Mail
- 1.8 Local cable TV and News
- 1.9 Notification to Impacted groups
(i.e. bicycle users, pedestrians with disabilities, others)
- 1.10 Project Web Page
- 1.11 Caltrans Public Information Office
- 1.12 Consultant Public Information Office
- 1.13 Other items

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
	X					
	X					
	X					
		X				
		X	066063			
		X				
		X				
		X				
X						
	X					
	X		066063			
		X				
	X					

2.0 Traveler Information Strategies

- 2.1 Changeable Message Signs (permanent)
- 2.2 Changeable Message Signs (portable)
- 2.3 Special Construction Signs
- 2.4 Traveler Information Systems (CHIN/Internet)
- 2.5 Highway Advisory Radio "HAR" (fixed or mobile)
- 2.6 Radar Speed Sign
- 2.7 Traffic Management Team
- 2.8 Revised Transit Schedules/ Maps
- 2.9 Bicycle community information
- 2.10 Other item

		X				
X			128650			X
X			120690			
	X		861985			
		X	860520			
		X	066064			
		X				
		X				
X						
		X				

3.0 Incident Management

- 3.1 COZEPP
- 3.2 Freeway Service Patrol (tow truck service patrol)
- 3.3 Traffic Surveillance Stations (loops or CCTV)
- 3.4 Transportation Management Center
- 3.5 Traffic Control Inspector (Caltrans)
- 3.6 Traffic Management Team
- 3.7 On-site Traffic Advisor (contractor)
- 3.8 Other Items

X			066062			
	X		066065			
		X	066876			
		X				
	X					
		X				
	X					
		X				

4.0 Construction Strategies

- 4.1 Delay damage clause
- 4.2 Night work
- 4.3 Weekend Work
- 4.4 Extended Weekend Closures
- 4.5 Planned Lane Closures
- 4.6 Planned Ramp/Connector Closures
- 4.7 Total Facility Closure
- 4.8 Project Phasing
- 4.9 Truck Traffic Restrictions
- 4.10 Reduced Lane Widths

		X				
X				Per Lane Closure Charts		X
	X					
		X				
X						X
		X				
		X				
X						X
	X					
		X				

4.0 Construction Strategies (Continued)

	REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
4.11 Temporary K-Rail	X			129000			X
4.12 Temporary Traffic Screens		X		129150			
4.13 Reduced Speed Zones		X					
4.14 Traffic Control Improvements			X				
4.15 Contingency Plans	X						X
4.15.1 Material Plant on standby			X				
4.15.2 Extra Critical Equipment on site			X				
4.15.3 Material Testing Plan			X				
4.15.4 Alternate Material on site			X				
(In case of failure or major delays)							
4.15.5 Emergency Detour Plan		X					
4.15.6 Emergency Notification Plan	X						
4.15.7 Weather Conditions Plan			X				
4.15.8 Delay Timing and Documentation Plan		X					
4.15.9 Late Closure Reopening Notification	X						
4.16 Signal timing modification			X				
4.17 Coordination with adjacent construction	X						X
4.18 Double Fine Zone (signs)		X					
4.19 Right of Way Delay			X	066022			
4.20 Other Items			X				

5.0 Demand Management

5.1 HOV Lanes/Ramps			X				
5.2 Ramp metering			X				
5.3 Park-and-Ride Lots			X				
5.4 Parking Management/Pricing			X				
5.5 Rideshare Incentives			X				
5.6 Rideshare Marketing			X	066069			
5.7 Transit, Train, or Light-Rail Incentives			X	066066			
5.8 Transit Service Modification			X				
5.9 Variable Work Hours			X				
5.10 Telecommute			X				
5.11 Other Items			X				

6.0 Alternate Route Strategies

6.1 Ramp Closures			X				
6.2 Street Improvements			X				
6.3 Reversible Lanes	X						
6.4 Temporary Lanes or Shoulders Use			X				
6.5 Freeway to freeway connector closures			X				
6.6 Encroachment Permit from City/County			X				

7.0 Other Strategies

7.1 Application of new technology			X				
7.2 Other Items			X				

Comments:

Attachment S

Project Risk Register

LEVEL 1 - RISK REGISTER				Project Name: S.F. American River Bridge Retrofit/Replace			DIST- EA	03-0F310	Project Manager	Jess Avila			
Risk Identification							Risk Rating		Risk Response				
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Priority Rating	Rationale for Rating	Strategy	Response Actions		Risk Owner	Updated
Retired	1	Threat	PM	Support Budget Overrun	The percent PA&ED expenditures are greater then the percent complete of the project, the remaining work may be more then support budget allocated which will lead to over running this phase of work.	Project expenditures are at 60% to budget. Percent complete of PA&ED is about 30%. PCR was processes and approved, except that under PMD 022 Type C program change is not made	High	High probability of programmed amount of support dollars will be overrun.	Accept	Per discussion with SFP and outcome of August 2013 Status meeting a PCR may need to be processed. PCR was processed		Jess Avila	9/12/2013
Retired	2	Threat	PM	PA&ED Schedule Delay	Delay in RW PTEs, increased ESL, and delay in design alignment information original schedule may require revision that may lead failure to deliver project in FY programmed.	Schedule was revised, but kept within project programmed FY.	High	Schedule has been revised with no more room for further delays in PA&ED or PS&E.	Accept	Monitor milestone delivery schedule and look for opportunities to expedite project phase completion.		Jess Avila	9/12/2013
Retired	3	Threat	PM	Capital Cost Overrun	Projects alternatives include bridge replacement which may result in costs over the programmed amount.	Alternatives are being studied, and APS requests are pending - All alternative are below the programmed amount for the project.	Medium		Accept	Complete alignments studies, make APS requests asap		Nesar Formoli	9/12/2013
Retired	4	Threat	PM	RW Capital Overrun	Alternative alignments are being studied that require additional RW which may require RW acquisition and lead to an overrun of the programmed amount.	Design alternatives are being studied and need of RW requirements is forthcoming. PCR was approved for increasing R/W support that includes R/W acquisition work.	Medium		Mitigate	Choose an alignment or strategies to avoid any RW acquisition.		Nesar Formoli	9/12/2013
Retired	5	Threat	Design	River Access Requirements	PDPM Guidance and Local interests require investigation of river access at the project location, which may require additional work effort and project scope increasing project support and capital costs.	Env/Design have met with locals to discuss river access - Will move forward as agreed to at Delivery Hour mtg on May 19, 2014. River access is proposed to be maintained. River access proposed is acceptable to D3 executive management and local agency representatives.	High	Must include into the design of the project, but is a new concept and outside the box. Also balancing what CT, the locals, and external agencies want is difficult.	Accept	Work with locals in understanding use of river by the public and address in work effort and project scope. Also work with PDT team and external agencies as well.		Nesar Formoli	9/12/2013
Retired	6	Threat	Environmental	Env 4 (f) requirements	Environmental studies are underway and there is an uncertainty of 4(f) implication, which may affect the environmental schedule.		Medium			Environmental staff to work with Design to get necessary information and make a determination if sections 4(f) is applicable on this project.		Suzy Melim	9/12/2013
Active	7	Threat	PM	Programming Change	Alternative alignments are being studied that include bridge replacement and fund allocation may be delayed leading to project delivery failure.	Program advisor is willing to justify bridge replacement through life-cycle cost analysis. As of May 19, 2014 only request PA&ED PCR and leave remaining programming and schedule unchanged. *01-14-15 risk has been realized and changed Rating from Medium to High. PDT analysis and public input of the environmental document desire bridge replacement alternative 3A. - There are support budget and schedule impacts that require a PCR. Discussion of FY change are under discussion with HQ Program Advisor. Program advisor supports bridge replacement with the knowledge that the bridge is also scour critical. Bridge replacement on an offset alignment is the preferred alternative.	High		Accept	Keep program advisor apprised of project developments. Meet with Program Advisor to justify a fiscal year change in programming. Recommend to proceed in completing PA&ED based on input from PDT and public input. A programming change is required and will be documented in a PCR.		Jess Avila	9/12/2013

LEVEL 1 - RISK REGISTER				Project Name: S.F. American River Bridge Retrofit/Replace			DIST- EA	03-0F310	Project Manager	Jess Avila		
Risk Identification							Risk Rating		Risk Response			
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Priority Rating	Rationale for Rating	Strategy	Response Actions	Risk Owner	Updated
Retired	8	Threat	DES	Geotechnical work in river	Alternatives are being studied that include bridge replacement and may require river subsurface exploration, which may lead to environmental concerns.	APS is pending - Environmental is working on acquiring drilling permits. Geotechnical work is planned during PA&ED and included in PCR request. 9/18/14 Drilling permits are pending. *1-14-15 Drilling permits were obtained and geotechnical drilling completed.	Low			This risk needs to be considered in PA&ED and monitored in PS&E	DES	9/12/2013
Retired	9	Threat	Design	Hydraulic Investigation	FEMA mapping indicates HW above existing bridge profile, if hydraulic investigation that is underway results an HW levels above the bridge profile this may affect environmental and design work performed thus far and require additional time and increased budget to address.	Survey and hydraulic work has been resourced and is underway. Hydraulic information is anticipated by late August or early September. Draft Final Hydraulic Report dated 9/15/14 indicates HW level can pass underneath existing structure and proposed replacement bridge profiles.	Low	FEMA mapping is accurate to within 50' contour lines and project alternative being considered will not adversely affect the current existing condition at the site.	Accept	Follow-up with surveys, district hydraulics and structure hydraulics on report and findings	PM	Feb. 2014
Retired	10	Threat	Environmental	Public Controversy	Project is anticipated to be an MND and Categorical Exclusion under NEPA, unless there is substantial public controversy in which case the project schedule and cost may be affected.	PDT has been working with community in getting their input to achieve context sensitive solution on the project. * 1-14-15 No public controversy is expected with Alternative 3A (bridge replacement) Except that in conjunction with Risk #7, if HQ Program Manager does not support the preferred alternative and Alternative 2 (Seismic Retrofit and Widening) is selected, then the risk of public controversy is heightened.	High	1-14-15 Alternative 2 will require revision to the environmental document.	Accept	Continue working with community groups and providing them feedback on their request regarding river access. Hold public meeting during environmental document circulation. 1-14-15 provide HQ Program Manager substantiating information for moving the FY 15/16 to FY 16/17	PM/Env	5/19/2014
Active	11	Threat	Design	PS&E Schedule	PA&ED schedule was revised to allow studies to be completed and environmental document to be circulated starting 7/1/14 constraining the project PS&E schedule and may not allow enough time for structures design to complete their work to meet RTL within FY programmed.	Schedule has been revised with no more room for further delays in PA&ED or PS&E. Structure design has communicated their concern about PS&E schedule (SD requires 15.5 months from M221 to M378). *1-14-15 This risk has been realized and PS&E schedule will need to be revised. 2-17-15 District will pursue delivering project within programmed fiscal year.	High	Rating assumed no personnel changes on project. Project was idle for four months with no PE to continue work to keep project on schedule.	Accept	Work with hydraulics, district surveys, structures preliminary investigation, district design and geotechnical services to provide structure design the required information to allow for project delivery within FY programmed. *1-14-15 Meeting has been scheduled with HQ Program Manager to discuss FY delay. HQ Program Manager is agreeable with the change to the delivery year. 2-17-15 District will pursue delivering project within programmed fiscal year.	PM	1/7/2014
Active	12	Threat	ROW	R/W Lead Time	The current schedule does not provide RW the necessary lead time between M225 and M410 and RTL may be delayed which may place project outside of FY 15/16 delivery.	6/16/14 - Preferred alternative is unknown at this time and there is a 50/50 chance 19-21 month lead time is necessary. *1-14-15 this risk has been realized with the selection of the preferred Alternative 3A. A new schedule will need to be developed pending HQ Program Manager concurrence. Program Manager has concurred on FY change. 2-17-15 District is pursuing fiscal year delivery	High	R/W Requirements are necessary before Regular R/W can start	Accept	Design and R/W coordination of RW requirements will be managed and risk design may need to be done to keep project on schedule	PM/Design/RW	6/3/2014

LEVEL 1 - RISK REGISTER				Project Name: S.F. American River Bridge Retrofit/Replace			DIST- EA	03-0F310	Project Manager	Jess Avila		
Risk Identification							Risk Rating		Risk Response			
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Priority Rating	Rationale for Rating	Strategy	Response Actions	Risk Owner	Updated
Active	13	Threat	Construction	Differing site conditions	Foundations within waterway may encounter variable water level and difficult excavation which may lead to differing site condition claim from the contractor	Geotechnical drilling will be performed on the project to better asses site conditions.	Low		Accept	Provide as much information to contractor as possible to minimize risk	Design/Geotech	7/3/2014
Retired	14	Threat	Design	No Project Engineer on Project	No assigned PE will delay delivery of project PA&ED, PS&E and RTL milestones, which will impact 16/17 fiscal year delivery of this project.	9/18/14 - no PE since August 1, 2014. Past PE is helping finalize DPR to initiate public circulation of Environmental Doc. *1-14-15 this project has been realized.	High	Strategy to keep the project design elements that include, bridge site submittal, r/w mapping layout etc has been delayed and will affect SD and R/W delivery	Accept	Design to assign experienced Project Engineer, acquire an exception for the use of CAICE on this project, and prioritize for work to continue on this project. Work closely with SD and R/W to find way to keep project on schedule	Design	8/3/2014
Active	15	Threat	Design	Aesthetics	The public would like to be involved in the selection of aesthetic treatment on the project; the public may suggest substantial treatment or change in structure types that may lead to schedule impacts and cost overruns.	Public input has been documented in the final environmental document and PDT will follow up with locals to present Caltrans aesthetic alternative for the project.	Medium		Accept	CT staff to develop a few aesthetic feature alternatives on the project and present to local residents for their input. Work with local partners to arrange the presentation.	Project Manager/Design	12/1/2014
Active	16	Threat	R/W	Utilities	Utility conflicts have been identified and will require relocation. Utility agreements may be delayed which may lead to FY 15/16 RTL delivery failure	Design and Utility unit working on potholing known utilities in conflict.	Low		Accept	Monitor work efforts associated with utility relocation efforts.	PM/Design	2/14/2015
Active	17	Threat	Design	Structure Design	District is pursuing delivering project within FY 15/16 shortening SD design duration; SOE may not be able to deliver the SPS&E to DOE on a shortened schedule which may lead to FY 15/16 RTL delivery failure.	District has started a dialogue with SD design of the shortened schedule.	High	Currently SD would have about 6 months to complete their P&Q package and SOE would have 2 1/2 months to complete a Draft SP&E.	Accept	Continue dialogue with SD, Geotech, Structure Hydraulics and Foundation plan unit about delivery constraints. BSS required by 4/1/15	Project Manager/Design	2/25/2015
Active	18	Threat	Environmental	Environmental Permits	District is pursuing delivering project within FY 15/16 and may result in reduced duration to obtain environmental permits which would lead to FY 15/16 RTL delivery failure	Environmental to work with Structure General Plan and Foundation Plan work description to start the environmental application process. Enough detail information is necessary to proceed with applications.	Medium		Accept	Obtain the following for environmental to process application: dewatering identified, all false work is identified, access roads and staging areas are identified and discussion prepared for removal of the old bridge, drainage work needed outside of the bridge	Design/Structure Design	2/25/2015
Active	19	Threat	Design	RW Lines for Design	RW Engineering has determined that current RW lines are not sufficient to control the design and require field surveys to tie the necessary control to establish final R/W; required field surveys and R/W engineering work may delay delivery of M224 requirements, which may lead to delaying regular right-of-way and ultimate FY delivery failure.	RW Engineering to coordinate with field surveys for necessary information and design for right-of-way needs that includes the use of retaining walls. Work with geotechnical services in choosing the least R/W intrusive retaining wall types.	Medium		Mitigate	Work with design, geotechnical services and R/W engineering to determine a way to keep milestone 224 delivery on schedule.	Design/RW Engineering	3/2/2015
Active	20	Threat	DES	Retaining wall geotechnical work	Geotechnical Services requires drilling for appropriate type selection of retaining walls required on the project; necessary drilling duration may jeopardize delivery of right-of-way requirements, retaining wall design and ultimate FY delivery failure.	District needs to complete retaining wall layouts and request final geotechnical report.	Medium		Mitigate	Work with design, geotechnical services and R/W engineering to determine a way to move forward with appropriate right-of-way requirements. Meet with geotechnical services, design and environmental in way to expedite drilling operation. Request preliminary type selection of walls with known information in the area.	Design/RW Engineering/Geotechnical Services	3/2/2015

Attachment T

Programming Sheet

PROGRAMMING SHEET

03/06/2015

EFIS ID: 0300000078 EA:03-0F310 County: ED Route: 049 PostMile: 24.00/24.00

Project Manager: AVILA, JESUS S	PM Assistant: DAY JR, JAMES R	Project Nickname: S.F. American River Br. Project
Project Description - Long: ABOUT 8.5 MILES NORTH OF PLACERVILLE AT SOUTH FORK AMERICAN RIVER BRIDGE 25-21		
Work Description - Long: Replace Bridge		
PPNO: 3122	Program: shopp	RTP: No Funding Candidate: No PROGRAM YR: 2016 Working Days: 400
Open for Time: Yes	Subprogram: Bridge Seismic Restoration	CT Status: APL RMP: RMP Date:
10 Yr SHOPP: Yes	AADD: Yes	Dist Category: SHOPP MAJOR
FED Aid Eligible: YES		

MS	MS Description	MS Date
M000	ID NEED	07/09/2008 (A)
M010	APPROVE PID	11/01/2011 (A)
M015	PROG PROJ	03/28/2012 (A)
M020	BEGIN ENVIRO	08/01/2012 (A)
M040	BEGIN PROJ	10/01/2012 (A)
M120	CIRC DPR & DED EXT	10/17/2014 (A)
M200	PA & ED	03/06/2015 (T)
M210	BEGIN DESIGN	03/09/2015 (T)
M221	BRIDGE SITE DATA RECEIVE	04/01/2015 (T)
M224	R/W REQTS	04/01/2015 (T)
M225	REGULAR R/W	07/01/2015 (T)
M275	GENERAL PLANS	05/01/2015 (T)
M311	30% CONST REVIEW COMPL	06/02/2015 (T)
M313	60% CONST REVIEW COMPL	09/23/2015 (T)
M315	95% CONST REVIEW COMPL	03/04/2016 (T)
M377	PS&E TO DOE	01/25/2016 (T)
M378	DRAFT STRUC PS&E	12/18/2015 (T)
M380	PROJ PS&E	04/04/2016 (T)
M410	R/W CERT	05/02/2016 (T)
M412	R/W CERT - READY TO AWAF	05/09/2016 (T)
M460	RTL	05/16/2016 (T)
M470	FUND ALLOCATION	08/26/2016 (T)
M480	HQ ADVERT	09/28/2016 (T)
M490	BIDS OPEN	10/26/2016 (T)
M495	AWARD	11/28/2016 (T)
M500	APPROVE CONTRACT	12/12/2016 (T)
M600	CONTRACT ACCEPT	01/12/2019 (T)
M650	PROJECT CLOSEOUT INITIA	01/12/2020 (T)
M700	FINAL REPORT	01/12/2021 (T)
M800	END PROJ	01/12/2022 (T)

Capital Cost Estimates		
	Amount \$k	EST Date
Roadway	6,880	03/04/15
Structures	6,993	04/16/14
Const Total	13,873	
ROW	464	03/13/14
Total	14,337	

Env Doc: IS, CE (NEPA),

Funding Info (\$k)						
Fund Source	PA&ED	PS&E	ROW	CON	ROW Cap	CON CAP
2010201.113	710	1,731	460	2,076	0	0
2020201.113	0	0	0	0	499	13,908
2030600.620	0	0	0	0	0	500
Grand Total:	710	1,731	460	2,076	499	14,408

Capital Cost Estimates	
2016	
CC Escalation %:	3.50%
CC Escalated \$:	14,359
ROW CAPITAL:	464
TOTAL:	14,823

PROJECT SUPPORT COSTS									
Phase	PRIOR	2015	2016	2017	2018	2019	Future	Total	Sup/Cap
Escalation Rate	ACT \$	ETC	(1.50%)	(1.50%)	(1.50%)	(1.50%)	(1.50%)		
0	1,633	52	0	0	0	0	0	1,685	11.37%
1	0	758	1,605	91	0	0	0	2,453	16.55%
2	0	159	67	10	10	23	98	368	2.48%
3	0	0	0	824	1,466	431	181	2,902	19.58%
TOTAL SUPPORT COSTS:								7,408	49.98%
TOTAL PROJECT COSTS:								22,231	

PROJECT SUPPORT PYs									
Division	PRIOR	2015	2016	2017	2018	2019	Future	Total	
	ACT PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	PYs	
TOTALS:	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	
03	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	
03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	
03	0.04	0.03	0.08	1.43	2.61	1.45	0.18	5.83	
03	2.03	0.21	0.41	0.06	0.08	0.05	0.03	2.86	
03	0.37	0.27	0.15	0.03	0.01	0.01	0.00	0.85	
03	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.01	
03	0.36	0.11	0.34	0.23	0.15	0.15	0.37	1.71	
03	2.42	0.83	1.43	0.03	0.03	0.02	0.01	4.76	
03	0.44	0.15	0.41	0.05	0.05	0.04	0.10	1.23	
03	1.00	0.91	0.15	0.14	0.24	0.19	0.32	2.95	
03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	
03	0.19	0.17	0.51	0.04	0.04	0.02	0.02	0.99	
03	6.99	2.69	3.48	2.00	3.20	1.93	1.03	21.26	
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
59	0.93	0.58	1.15	0.04	0.07	0.04	0.03	2.84	
59	0.00	0.00	0.00	0.02	0.03	0.02	0.00	0.06	
59	0.00	0.00	0.04	0.11	0.00	0.00	0.00	0.16	
59	0.09	0.02	0.07	0.03	0.01	0.01	0.02	0.24	
59	0.01	0.01	0.07	1.74	2.90	0.04	0.04	4.81	
59	0.50	1.10	2.78	0.03	0.04	0.01	0.01	4.47	

Division		PRIOR	2015	2016	2017	2018	2019	Future	Total
		ACT PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	PYs
59	SP&I	0.12	0.14	0.11	0.00	0.00	0.00	0.00	0.37
59	TOTALS:	1.65	1.85	4.23	1.97	3.04	0.11	0.10	12.95
PROJECT TOTALS:		8.82	4.54	7.71	3.97	6.25	2.04	1.13	34.39

Comments: